

Contingent and Created: The Significance of the Concept of  
Createdness for a Theology in Dialogue with Science, with  
Special Reference to the Works of Colin E. Gunton

by

Ian R. W. McDonald

Ph.D.

University of Edinburgh

2004



Contingent and Created: The Significance of the Concept of Createdness for a  
Theology in Dialogue with Science, with Special Reference to the Works of Colin  
E. Gunton

In the first half of the last century, Michael B. Foster argued that the initial impetus for the development of modern science derived from the implicit or explicit Christian convictions of a number of early scientists. More specifically, aspects of the doctrine of creation gave these scientists confidence in the possibility and value of experimental investigation of the natural order. This argument was developed further, notably by Thomas F. Torrance, in two directions. First, this historical connection between natural science and the doctrine of creation was reinterpreted as a continuing methodological reliance of the natural sciences upon the created status of the natural order. Second, those properties of the natural order which are prerequisites for this ongoing reliance and which derive from its created status were identified as rationality and contingency, or the rational contingency of the natural order. In this thesis we develop this argument further by attempting to demonstrate the necessity of the concepts of the created status – the createdness – and rational contingency of the natural order for the interaction of science and theology. First, we argue that createdness is an essential aspect of Christian theology. Second, we argue that createdness and rational contingency are either held together or lost together in interactions between science and theology. Ultimately, we aim to demonstrate that there can be no interaction between science and theology as coherent disciplines in their own right except where the scientific contribution relies on rational contingency and the theological contribution articulates the createdness of the natural order.

We begin by developing a grammar of createdness, based on the theology of Colin E. Gunton, to enable us to describe theologically the createdness of the natural order and entities within it. Moreover, this allows us to identify the theological motifs that safeguard and endanger the concept of createdness. Key motifs in support include the divine prevenience, trinitarian divine action in the form of divine action-in-relation, and



a conceptualisation of the God-world relationship as a divine gifting of the world with the personal 'space' for existing in creaturely integrity.

In the second section, we test our grammar by determining the createdness of the evolutionary process in the theology of Pierre-Marie-Joseph Teilhard de Chardin. We conclude that Teilhard's understanding of evolution disregards its rational contingency, and we trace this back to a failure to safeguard the createdness of the process. For example, Teilhard inadequately secures the divine prevenience, which leads him to introduce an evolutionary Christology and eschatology.

In the third section, we apply our grammar to contemporary discussions of divine action at the science-theology interface and also from within popular science. We determine that despite the existence of some fruitful work on the inherent dynamism and potential of the evolutionary process, the createdness and the rational contingency of evolution are not preserved theologically or scientifically. Specifically, in both the science-theology material and the popular science material, there is an assumption that governing divine action is superfluous and undesirable. We finish by illustrating the importance of rational contingency and createdness for science-theology interaction by sketching a model of divine action in evolution that accounts for both.

I, Ian McDonald, declare that this work was researched and written by me alone and that it has not been submitted for any other degree

Signature: \_\_\_\_\_

Date: \_\_\_\_\_ 11/11/24 \_\_\_\_\_

“One cannot deny that Teilhard is a fervent believer in Teilhard and that he wonders how it is possible that the whole world is not Teilhardist as well.”

- Reijer Hooykaas

“[W]hile the young Gunton sometimes dismissed his opponents too quickly, Gunton now has even become more dismissive and disdainful, as if he were irritated that 25 years of Gunton have not been enough to bring his opponents round.”

- Marcel Sarot

“Blessed are the meek, for they shall inherit the earth.”

-Mt. 5:5, RSV

*For Lùthien, whoever she will be*

## TABLE OF CONTENTS

Contents.....	v
Preface.....	viii
Abbreviations.....	ix

### **Introduction: The Need for a Grammar of Createdness.....1**

- (A) Defining the Relationship between Science and Theology
- (B) The Roots of the Relationship between Science and Theology
- (C) Claiming the Significance of Createdness

### **Section 1: Deriving the Grammar of Createdness: The Theology of Colin E. Gunton**

Introduction: The Relevance of Gunton's Theology.....	19
---	----

#### **Chapter 1: The Doctrines of God and the God-World Relationship.....21**

- (A) The Doctrine of God
- (B) The Doctrine of the God-World Relationship
- (C) Critique

#### **Chapter 2: The Doctrine of Creation.....46**

- (A) Creation *ex nihilo*
- (B) The Nature of Created Reality
- (C) Critique

#### **Chapter 3: Divine Action-in-Relation (I) – The Work of the Son and the Spirit.....67**

- (A) God's Work in Jesus Christ: Christology and Soteriology
- (B) The Work of the Spirit: Pneumatology and Perfection
- (C) Critique

Chapter 4: Divine Action-in-Relation (II) – The Doctrine of the Church and the Doctrine of Providence.....	87
(A) Human Being –as –Communion: The Church as the Work of God	
(B) God in Action: The Doctrine of Providence	
(C) Critique	
Summary: Createdness in the Theology of Colin E. Gunton.....	108

## **Section 2: Testing the Grammar of Createdness: Evolution in the Thought of Teilhard de Chardin**

Introduction: Teilhard’s Evolutionary and Mystic Vision.....	114
Chapter 5: The Nature of Evolution in the Thought of Teilhard de Chardin.....	116
(A) The Evolution of Matter	
(B) The Evolution of Man	
(C) Evolution and Omega	
(D) Critique	
Chapter 6: Evolution and Theology (I) - Metaphysics, and the Incarnation.....	152
(A) Evolution and Metaphysics	
(B) Evolution and the Presence of Christ	
(C) Critique	
Chapter 7: Evolution and Theology (II) - Evolution and the Continuing Presence of Christ.....	179
(A) Christ as the Centre of Evolution	
(B) Evolution and the Evolving Presence of Christ	
(C) Critique	
Summary: The Createdness of Evolution in the Thought of Teilhard de Chardin.....	199

**Section 3: Applying the Grammar of Createdness: Evolution and the Science-Theology Interface**

Introduction: The Boundaries of our Study.....204

Chapter 8: Contemporary Perspectives on Evolution.....206

- (A) Functional Integrity (FI)
- (B) Arthur R. Peacocke
- (C) Process Theology
- (D) Critique

Chapter 9: Evolution from the Perspective of Createdness..... 233

- (A) Popular Science, Metaphysics, and Evolution
- (B) Evolution as a Creature
- (C) Divine Action-in-Relation and Evolution

Summary: Evolution, the Science-Theology Interface and the Grammar of Createdness.....262

**Conclusion: Createdness as an Essential Aspect of Theology at the Science-Theology Interface.....263**

- (A) Retrospective: The Findings of this Thesis
- (B) Prospective: Suggestions for Further Research

**Bibliography.....269**

## Preface

The acknowledgements page is always the most personal aspect of any work, and often the most irrelevant for the reader who is not involved. Of course, the great hazard is the reader who does pay close attention, because he or she thinks that they *are* involved and deserves a mention, thank you so very much. If they find themselves not mentioned, then strangely violence often ensues. As such, it is tempting not to write acknowledgements at all, but then everybody would be unhappy, and then the rampaging mob would be particularly large. Therefore, I ought to mention at least some of these individuals and hopefully I won't have my home burned down by the unmentioned hordes. Before I do, I give my gratitude and adoration to the living God, Father, Son and Spirit, for my redeemed existence in Christ and a constant sense of care and grace even during the dark times. Moreover, I praise God for two good supervisors and a veritable army of good friends, who have abated my innate flair for procrastination, incomprehensibility and financial insolvency. I would like to thank my two supervisors, Prof. David Fergusson and Revd. Dr. Michael Fuller, who have battled to overcome my natural incoherence and my 'shotgun' approach to critique. On a personal level, the greatest help has been provided by my father and stepmother (Mr. George McDonald, BEM and Mrs Joan McDonald). In terms of advice, generosity, emotional support and love, they have done more than anybody else to ensure that there is something in front of the present reader, and that the author was still upright at the time of writing. I am blessed to have many friends (especially Mike and Emma) who have given unstintingly of their time, resources and inestimable opinions to ensure that this thesis makes at least a modicum of sense, and who have also nursed me through some rough times. The kind assistance of Mr. Chris Brandie has been vital in translating some essential passages that were important but otherwise incomprehensibly foreign. Finally, a thank you to my best mate, LJ: you have done so much for me and helped me so much over the last few years that I cannot express my indebtedness, love and gratitude. To everybody else who isn't mentioned, but who should be: I haven't forgotten how you have helped, but I have forgotten who you are.

## Abbreviations used in this Thesis

### General Works and Journals

- CD* - Karl Barth, *Church Dogmatics*
- CAC* - Robert J. Russell, Nancey Murphy and Arthur R. Peacocke (eds.) *Chaos and Complexity: Scientific Perspectives on Divine Action*
- EMB* - Robert J. Russell, William R. Stoeger, S.J. and Francisco J. Ayala (eds.) *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action*
- IJOST* - *International Journal of Systematic Theology*
- FFS1* - Jitse M. van der Meer, (ed.) *Facets of Faith and Science, 1: Historiography and Modes of Interaction*
- FFS3* - Idem. *Facets of Faith and Science, 3: The Role of Beliefs in the Natural Sciences*
- FFS4* - Idem. *Facets of Faith and Science, 4: Interpreting God's Action in the World*
- JETS* - *Journal of the Evangelical Theological Society*
- JASA* - *Journal of the American Scientific Association*
- JTSA* - *Journal of Theology for Southern Africa*
- JTS* - *Journal of Theological Studies*
- NTP* - Robert John Russell, Nancey Murphy, Theo C. Meyering and Michael A. Arbib (eds.) *Neuroscience and the Person: Scientific Perspectives on Divine Action*
- PSCF* - *Perspectives on Science and Christian Faith*
- QCLN* - Robert John Russell, Nancey Murphy and C. J. Isham (eds.) *Quantum Cosmology and the Laws of Nature: Scientific Perspectives on Divine Action*
- NZSTh* - *Neue Zeitschrift für Systematische Theologie*
- SJOT* - *Scottish Journal of Theology*
- S&CB* - *Science & Christian Belief*

## Works by Gunton

- AAB        - *Act and Being* (2002)
- BB1        - *Being and Becoming* (1<sup>st</sup> edition) (1980)
- BB2        - *Being and Becoming* (rev. ed.) (2001)
- BTR        - *A Brief Theology of Revelation* (1995)
- CAC        - *Christ and Creation* (1992)
- EAA        - *Enlightenment and Alienation* (1985)
- FSH        - *Father, Son and Holy Spirit* (2003)
- IAA        - *Intellect and Action* (2000)
- IAI        - *Incarnation and Imagery* (1999)
- OTM        - *The One, the Three and the Many* (1993)
- PTT        - *The Promise of Trinitarian Theology* (1991)
- TAA        - *The Actuality of Atonement* (1988)
- TCF        - *The Christian Faith* (2002)
- TTC        - *The Triune Creator* (1998)
- TTL        - *The Transcendent Lord* (1988)
- TTT        - *Theology through the Theologians* (1996)
- YAT        - *Yesterday and Today* (1983)



## Works by Teilhard de Chardin

AE	- <i>Activation of Energy</i> (1970)
AM	- <i>The Appearance of Man</i> (1965)
CE	- <i>Christianity and Evolution</i> (1971)
FM	- <i>The Future of Man</i> (1964)
HE	- <i>Human Energy</i> (1969)
HM	- <i>The Heart of Matter</i> (1978)
HU	- <i>Hymn of the Universe</i> (1965)
GB	- <i>Lettres à L'Abbé Gaudefroy et à L'Abbé Breuil</i> (1988)
Journal	- <i>Journal, I: Cahiers, 1-5, 26 Août 1915 – 4 Janvier 1919</i> (1975)
LF	- <i>Letters From a Traveller 1923 – 1955</i> (1967)
LT	- <i>Letters to Two Friends 1926 – 1952</i> (1972)
MD	- <i>Le Milieu Divin: An Essay on the Interior Life</i> (1960)
PH	- <i>The Phenomenon of Man</i> (1977)
SC	- <i>Science and Christ</i> (1968)
TF	- <i>Towards the Future</i> (1975)
MM	- <i>The Making of a Mind</i> (1965)
VP	- <i>The Vision of the Past</i> (1966)
WW	- <i>Writings in Time of War</i> (1968)

## Introduction: The Need for a Grammar of Createdness

### *(A) Defining the Relationship between Science and Theology*

(i) The relationship between theology and the natural sciences has had a mixed character throughout history, to say the least. There are notoriously difficult moments, such as the medieval Church's treatment of Galileo, and the Scopes trial. Indeed, the famous or possibly infamous books by White and Draper<sup>1</sup> portrayed this relationship almost purely in terms of conflict. Irrespective of the validity of such a perspective (and more recent work has judged that the arguments in these two books are somewhat partisan), the current relationship between science and theology is more harmonious and more productive.<sup>2</sup> To be more specific, although there are many interactions at the level of specific cross-discipline issues such as divine action and ethics, a large proportion of the scholarly work here addresses the question of methodology. In particular, this often involves attempts to construct a series of models for defining the relationship between science and religion, and more importantly how these disciplines react to one another. Ian G. Barbour argues for four models for the interaction of science and theology, namely *conflict*, *independence*, *dialogue* and *integration*.<sup>3</sup> The *conflict* model represents scientific materialism and biblical literalism, whereas the *independence* model represents an emphasis on a contrasting of theological and scientific methods and languages such as we find in Neo-Orthodoxy and existentialist theology.<sup>4</sup> Needless to say, the most fruitful forms of relations between science and theology are understood to fit either within the *dialogue* or *integration* frameworks. *Dialogue* represents the posing of limit questions upon science by religion or theology, an outworking of methodological parallels or a nature-centred spirituality. *Integration* represents

---

<sup>1</sup> Andrew Dickson White, *A History of the Warfare of Science with Theology in Christendom* (New York: D. Appleton, 1897), and John William Draper, *History of the Conflict between Religion and Science* (24<sup>th</sup> edition) (London: Kegan, Paul, Trench and Traubner, 1904)

<sup>2</sup> For a brief survey of the more fruitful and creative forms of interaction in the Twentieth Century, see Hans Schwarz, *Creation* (Eerdmans: Grand Rapids, MI/Cambridge, 2002), 114-162

<sup>3</sup> Ian G. Barbour, *Religion and Science: Historical and Contemporary Issues* (revised and expanded edition) (London: SCM Press, 1998)

<sup>4</sup> Ibid. 77-90

natural theology, a theology of nature or systematic synthesis.<sup>5</sup> However, the extent to which *dialogue* and *integration* can be distinguished, and indeed science and theology themselves can be distinguished, is a question which lies at the heart of this thesis.

(ii) It is of course obvious that if there is to be a genuine interaction between theology and the natural sciences, then we should avoid *conflict* and *independence* and aim for *dialogue* or *integration*. Nonetheless, we are still left with the question of which of the two latter options is preferable. In this thesis we are not concerned directly with this question, but we are concerned to establish *how* we can tell which is preferable. Our contention is that the most basic parameter for genuine interaction is one in which the findings and methods of the natural sciences and theology are given equal status in discussion. In this more general sense we claim the importance of dialogue between these two disciplines.

(iii) The equal standing of theology is not important for the egos of theologians (at least not primarily), nor is it a case of points scoring, and a statistical analysis of the numbers of theologians quoted by scientists or *vice versa*. Instead we claim that it is imperative because only in so doing can we preserve the theological concept of *the createdness of the natural order and those entities within it*. This is because, as we hope to demonstrate, the concept of createdness is integral to both the scientific and theological endeavours. This is not to claim that createdness should be alluded to explicitly within the practices of the natural sciences, *per se*. However, createdness is the theological designation *and* explanation for those aspects of the natural order that make the scientific enterprise possible. In order to develop this further we must first make a diversion into the subject of the origins of modern science.

---

<sup>5</sup> Ibid. 90-105

***(B) The Roots of the Relationship between Science and Theology***

Since a series of seminal articles in the 1930s by Michael Foster, there has been a growing realisation that the origination of the natural sciences in the Christian West was by no means coincidental. This is because many of the early scientists were implicitly or explicitly influenced by key motifs from the Christian doctrine of creation. Our concern is to identify this *conceptual* dependence of the sciences on theology with an *actual* dependence of the natural sciences on the createdness of the natural order. In so doing we can provide the foundations for our argument on the importance of createdness for a dialogue model of science-theology interaction.

(i) During the first half of the twentieth century, Michael B. Foster published a number of articles in the journal *Mind* in which he contrasted the methodologies of the natural sciences and a generalised Greek science, and sought to account for the differences in underlying theological and philosophical presuppositions. In particular he was concerned to find an explanation for the empiricism of the natural sciences, because this implied a confidence in the reliability and regularity of sense observations that Foster argued was absent in Greek science. For Foster, the heart of the matter was that a conception of the world as created provided the impetus for this confidence, whereas the understanding of the world and its relationship to deity underlying Greek science could not provide this confidence. Foster sought to answer the question of why there was this confidence in sensory observation and sensory data, when the main alternative in the West was an *a priori* scientific method based on Aristotelian and Platonic thought. The difference in approach of these two methods is as follows;

Modern science describes natural substances instead of defining them, it discovers their properties by observation and experiment instead of by 'intuitive induction' and demonstration, it classifies their species instead of dividing their genera, it establishes between them the relation of cause and effect instead of the relation of ground and consequent.<sup>6</sup>

---

<sup>6</sup> Michael B. Foster, 'The Christian Doctrine of Creation and the Rise of Modern Science', *Mind*, 43/172 (1934), 446-468, (citation, 454)

Ancient and scholastic science was *a priori* because the essence of a natural object was definable, and could be deduced from reason.<sup>7</sup> Now, the difficulty for this position with regard to sensory experience is that definition is a rational act “containing no element of sense, however necessary it may be that sensuous perception should precede it.”<sup>8</sup> Furthermore, this deductive scientific methodology was based on an underlying metaphysical ontology. An object consists of a twofold union of intelligible form (or essence) and sensible matter. This has a negative connotation for the sensible aspect of an object because it is seen as inherently unreal. Although the form is only actualised in union with matter, the former alone determines the nature of this actuality. Matter, that which is sensible, is regarded as the source of the imperfect degree to which the form is realised.<sup>9</sup> Here sensory experience has a much attenuated, and certainly not evidential, role because although form has no actual existence without sensible embodiment, it is intelligible “only when it is conceived in complete distinction from it” in an act that contains no sensory observation.<sup>10</sup> Such a science is “the quest for logical rather than factual links between things.”<sup>11</sup> Now let us examine the connections between this metaphysics/ontology and the underlying theological perspective. Only when this has been done can we at least make a case for a historical connection between modern science and theology.

(ii) The theological tenets that buttress this scientific methodology involve an *incomplete distinction between the natural order and deity*. In turn, these derive from the Greek understanding of God as creative or Creator. Within Plato’s philosophical scheme we find the concept of the Demiurge, a concept that Aristotle also argued must be the implicit assumption in any science. The Demiurge is the creative aspect of divinity, but is not strictly speaking a Creator. He does not bring into being either form or matter, but has the task of uniting these to form a world of natural objects.

---

<sup>7</sup> Ibid. 454

<sup>8</sup> Ibid. 454-5

<sup>9</sup> Ibid. 455

<sup>10</sup> Michael B. Foster, ‘Christian Theology and Modern Science of Nature (I.)’, *Mind*, 44/176 (1935), 439-466, (citation, 462)

<sup>11</sup> TTC, 112

Indeed, both must be *given* to him and so “if God is Demiurge of the actual world, his work is confined to the uniting of its two elements, form and matter”.<sup>12</sup> In fact we find almost a note of opposition in that the Demiurge is *confronted* with the varieties of uncreated (and so eternal) form and matter.<sup>13</sup> Matter and form both, then, possess a divine attribute (eternality), and we have the beginnings of an incomplete conceptual distinction between deity and the natural world.

(iii) Greek science, then, required that the forms and matter be uncreated. Created matter would have active properties, and a created form would be unintelligible.<sup>14</sup> This relates back to the fact that Greek science treated the form as intelligible in isolation from its embodied material existence. For Aristotle, this was a consequence of the purposive (or end-directed) activity of the Demiurge. The end is that which the Demiurge adds to matter, and alone was deducible by science. Another key aspect of Greek theology that relates to this point is the notion of the divine will. The Demiurge may be perceived to be acting in the uniting of form and matter with a degree of will, but this is wholly subordinate to the end of forming natural objects.<sup>15</sup> In fact, the presence of will in this action of deity has negative connotations for a Greek science, because it can only lead to *an imperfect realisation of form*. The form alone, deduced in isolation from matter, is the proper object of science. As such, anything that detracts from the perfection of its realisation is an obstacle to science. Will is precisely such an obstacle. That aspect of an object that is not necessitated by the idea or form is defined as contingent, and the presence of contingency implies imperfection and so an imperfect act of realisation. Because imperfection cannot be attributed to the Demiurge, contingency must be said to stem from the natural object,<sup>16</sup> and more precisely from the natural recalcitrance of matter.<sup>17</sup> Again, the material and sensible are excluded from science. This lack of distinction between God and the world is also exacerbated by Plato’s likening of the God-world

<sup>12</sup> Foster, ‘The Christian Doctrine of Creation and the Rise of Modern Science’, 459

<sup>13</sup> Ibid. 459

<sup>14</sup> Ibid. 456

<sup>15</sup> Ibid. 462

<sup>16</sup> Ibid. 463 and Michael B. Foster, ‘Christian Theology and Modern Science of Nature (II.)’, *Mind*, 45/177 (1936), 1-27, (citation, 4-5)

<sup>17</sup> Foster, ‘The Christian Doctrine of Creation and the Rise of Modern Science’, 463

relationship to that of a father-son relationship.<sup>18</sup> If the world were generated as an offspring or emanation from God it would exhibit a divine nature; it would be self-derived, necessary and divine.<sup>19</sup> The world cannot be fully distinguished from God, and Pantheism follows.<sup>20</sup> Aristotle may not have subscribed to this account of the God-world relationship, but in his science we see an equal potential for pantheistic thinking. Hence, one of the striking elements of the rationale for Greek science is the *active resistance* which matter makes against the perfect realisation of form by the Demiurge. The divine action is not only limited to uniting, but it is confronted with what must be interpreted as a divine power or activity within matter.<sup>21</sup> In Aristotelian thought this pantheistic notion is emphasised by his denial of efficient causality to the deity.<sup>22</sup> In other words, God and the world are not confused by direct Pantheism but by *an implied ascription of divine causality to nature*;

This is simply to conceive nature as being, in respect of the exercise of this power, indistinguishable from God.<sup>23</sup>

According to Foster, and those authors in at least broad agreement with his proposal, Greek science was therefore marked by a necessitarian conception of the natural order. Where the universe is necessary, it *must* have the pattern and properties with which it is imbued. Moreover, these properties cannot be understood through the senses. There are higher principles lying behind the sensible aspect of the universe, whether these are uncreated forms, or the ends that Aristotelian science envisaged to be underlying the behaviour of natural objects. This leads to a deductive science in which the nature of the universe “will be discovered by thought rather than by experiment.”<sup>24</sup> In sharp contrast, if the world is understood to be created, then the sciences take on an entirely different pattern.

---

<sup>18</sup> Foster ‘Christian Theology and Modern Science of Nature (I.)’, 444

<sup>19</sup> Ibid. 449

<sup>20</sup> Stanley L. Jaki, *God and the Cosmologists* (Edinburgh: Scottish Academic Press, 1989), 85

<sup>21</sup> If inanimate and unconscious matter can *resist* divine activity, then the recalcitrance of matter is at the very least suggestive of an activity comparable to that of the divine. We shall come across this notion in Section 2 of this thesis.

<sup>22</sup> Foster, ‘Christian Theology and Modern Science of Nature (I.)’, 452

<sup>23</sup> Ibid. 454

<sup>24</sup> Philip Luscombe, *Groundwork of Science and Religion* (Peterborough: Epworth Press, 2000), 17



(iv) Unsurprisingly, Foster's thesis has over the years generated heated debate, both in contention and in support. Before we can go on to discuss those in support, including those which will enable us to present the case for a contemporary connection between science and theology, we must briefly discuss some pertinent criticisms. First of all, it is quite possible to play down or even deny a strong correlation between theology and the rise of the natural sciences. For instance, John Hick forcibly argues that the rise of science represented *an undermining of European superstition*.<sup>25</sup> Whilst he does not deny that there is some connectivity between religious beliefs and the rise of scientists, he wants to affirm that this is a minor influence amongst many others;

Modern science is not a product of Christianity as such but of the impact on Christian Europe of the Greek spirit of free enquiry during the vast cultural transformation known as the Renaissance, stimulated by a rediscovery of classical literature and thought that was rapidly spread by the new invention of printing.<sup>26</sup>

However, quite aside from historical accuracy, about which we shall have more to say, questions have also been raised about the internal coherence of Foster's argument. Willem Drees argues that Foster sees a "one-to-one correspondence" between theologies and philosophies of nature. He is guilty of simplifying an argument for propagandist reasons at the expense of accuracy. His rather black and white approach (which Drees argues he shares with Jaki) means that he ignores the more empirical work of Archimedes and Greek astronomy.<sup>27</sup> Ian Weeks and Struan Jacobs make a similar charge of incoherence. They argue that Foster claims, without providing evidence, that Greek polytheism underlies Aristotelian thought.<sup>28</sup>

---

<sup>25</sup> John Hick, *An Interpretation of Religion: Human Responses to the Transcendent* (Basingstoke: MacMillan Press, 1989), 327

<sup>26</sup> Ibid. 328

<sup>27</sup> Willem Drees, *Religion, Science and Naturalism* (Cambridge: Cambridge University Press, 1996), 78-79. Whilst it is true that Foster by his own admission has presented a generalised argument, this does not detract from the overall accuracy of his position. Drees rightly points out the involvement of other factors, but must rely on accusations of propaganda against those in support of Foster's general thesis.

<sup>28</sup> Ian Weeks and Struan Jacobs, 'Theological and Philosophical Presuppositions of Ancient and Modern Science: A Critical Analysis of Foster's Account', in C. Wybrow (ed.) *Creation, Nature and Political Order in the Philosophy of Michael Foster (1903-1959): The Classic "Mind" Articles and Others, with Modern Critical Essays* (Lewiston and Lampeter: Edwin Mellen Press, 1992), 255-268, (citation, 258)



Moreover, because Foster argues that Greek science also uses a 'monotheistic' principle of unity that is not derived from polytheism, then the latter is not *in itself* capable of generating a science.<sup>29</sup> Finally, Foster's deliberations on the theology of the Demiurge are also self-contradictory in that he argues that this is highly influential on Aristotelian thought but at the same time cannot be the foundation for Aristotelian science because the Demiurge is outside of nature and can have no effect on it. Again, this suggests that theology has no implication for science.<sup>30</sup> In general, Foster has "no consistent, definitive statement of which theology-*cum*-philosophy is presupposed by, or related by entailment to, Aristotelian (Greek) science."<sup>31</sup> Although this is sensitive and insightful criticism, it does seem to miss Foster's main point, which is that it is the theological or philosophical understanding *of the natural order* that is significant for the Aristotelian scientific method. Hence, to argue that the Demiurge concept does not affect science because it is not part of the natural order ignores the fact that this concept in and of itself suggests a very specific understanding of the natural order itself, and hence has some consequences for a natural philosophy. Rolf Gruner does not perhaps go quite so far in his criticisms of Foster, but he also detects propagandist and revisionist tendencies in his argument. In particular, he argues that it rather conveniently does away with those aspects of Christian theology that might in fact have hindered the rise of the natural sciences.<sup>32</sup>

(v) Numerous commentators in this field have noted that Foster's argument, regardless of their estimation of its value, is weakened by a lack of historical evidence in its presentation.<sup>33</sup> In other words, Foster provides no evidence to back up his argument. However, in the intervening decades a great deal of evidence *has* been accumulated to support his general contention that early scientists were influenced by

---

<sup>29</sup> Ibid. 259

<sup>30</sup> Ibid. 260

<sup>31</sup> Ibid. 261

<sup>32</sup> For instance, the suspicion of the natural order due to the doctrine of the Fall. (Rolf Gruner, 'Science, Nature and Christianity', in Wybrow, *Creation, Nature and Political Order*, 213-243, (citation, 221-22))

<sup>33</sup> Weeks and Jacobs, 'Theological and Philosophical Presuppositions of Ancient and Modern Science', 268; in the same volume, Stanley L. Jaki, 'Telltale Remarks and A Tale Untold', 268-296, (citation, 271); and also in the same volume, Francis Oakley, 'Christian Theology and the Newtonian Science: The Rise of the Concept of the Laws of Nature', 179-211, (citations, 200 and 210, n1)

aspects of Christian theology, and not least the doctrine of creation. Nonetheless, this does not necessarily provide precise support for his argument, as we shall see.<sup>34</sup> Edward B. Davis rightly points out that according to Foster, “the connection between Christian theology and the presuppositions of modern science is itself logically necessary, not historically contingent.”<sup>35</sup> Jaki claims that Foster should have been more careful to suggest that early scientists were *unconsciously*, rather than *deliberately*, using tenets from the doctrine of creation.<sup>36</sup> John Hedley Brooke has very carefully discussed some of the consequences of arguing for too tight a connection between science and theology. He agrees broadly with the proposition that there is some connectivity between the doctrine of creation and the rise of modern science<sup>37</sup>, but for him there is “a big jump from that proposition to the more tendentious claim that the *causes* of modern science are to be found in a theology of creation.”<sup>38</sup> Brooke notes for instance that the notion of the invariance of divine ideas might have been useful for Kepler’s application of geometry to the physical world, but certainly proved an obstacle for the acceptance of Darwinism by Richard Owen

<sup>34</sup> Hugh Kearney argues that there were in fact *three* theologically influenced traditions involved in the rise of modern science, *each of which* in turn was based on a form of Greek thought! (Hugh Kearney, *Science and Change 1500-1700* (London: Weidenfeld and Nicolson, 1971)). On this, see also Colin A. Russell, *Cross-currents: Interactions between Science and Faith* (Leicester: InterVarsity Press, 1985), ch. 2. There is also a wide-ranging argument for the *sociocultural* influence of religion on the rise of science. The best known of these is probably the ‘Merton thesis’, which argues for the importance of Puritanism on the origins of science. Peter Harrison has also recently argued that at a more diffuse level, Protestantism itself, and the Protestant approach to Scripture helped to demythologise or desymbolise nature. (Peter Harrison, *The Bible, Protestantism, and the Rise of Natural Science* (Cambridge, Cambridge University Press, 1998), 5-7). For more on this see John Dillenberger, *Protestant Thought and Natural Science: A Historical Interpretation* (London: Collins, 1961). Reijer Hooykaas is in general agreement with Foster’s position, although he makes more of a clear-cut distinction between the Platonic Demiurge and the Aristotelian organic/generative scheme. (Reijer Hooykaas, *Religion and the Rise of Modern Science* (Edinburgh: Scottish Academic Press, 1973), 10)

<sup>35</sup> Edward B. Davis, ‘Rationalism, Voluntarism and Seventeenth-Century Science’, in Jitse M. van der Meer (ed.) *Facets of Faith and Science, 3: The Role of Beliefs in the Natural Sciences* (Lanham: University Press of America; Ancaster: The Pascal Centre for Advanced Studies in Faith and Science, 1996), 135-154, (citation, 138). Davis is not unsupportive of Foster’s thesis, and provides evidence in this essay for the importance of voluntarist theology for Galileo, Descartes and Boyle.

<sup>36</sup> Jaki, ‘Telltale Remarks and A Tale Untold’, 272. However, in Foster’s defence, J. R. Jacobs has argued quite convincingly that Robert Boyle consciously used his natural science as an apologetics against Scholastic reasoning and in general against contemporary Roman Catholicism. (J. R. Jacobs, ‘Boyle’s Atomism and the Restoration Assault on Pagan Naturalism’, *Social Studies of Science*, 8:2 (1978), 211-233, (especially 213-214))

<sup>37</sup> John Hedley Brooke, ‘Religious Belief and the Natural Sciences: Mapping the Historical Landscape’, in Jitse M. van der Meer (ed.) *Facets of Faith and Science, 1: Historiography and Modes of Interaction* (Lanham: University Press of America; Ancaster: The Pascal Centre for Advanced Studies in Faith and Science, 1996), 1-26, (citation, 4)

<sup>38</sup> *Ibid.* 5

and Louis Agassiz. Furthermore, Brooke is suspicious because the doctrine of creation does not seem to apply many limits to what can be considered as legitimate science.<sup>39</sup> Clarke and Leibniz were both creationists with a strong emphasis on divine omnipotence, but they came to radically different ideas on the nature of the natural order. Clarke argued that omnipotence and divine freedom were connected and so the possibility of God acting in the natural order had to be maintained. Leibniz perceived the possibility of, or need for such divine action within the natural order as a slight upon divine foresight.<sup>40</sup> However, Brooke's criticisms only hold if we are assuming a virtually one-to-one correlation of science and any theological presuppositions. If we do not assume this to be the case (and the present author is not convinced that Foster was making such a definitive argument) then one can still maintain a degree of correlation between science and theology.<sup>41</sup>

(vi) We began our discussion by describing modern science as an empirical discipline, i.e. one that is reliant upon sensory data. We are seeking to explain how this scientific method, so radically distinct from the Greek, arose in the Christian West. Our answer is that the prevailing Christian belief in the createdness of the natural order gave credence to a belief that reliable information could be derived from the natural order through sensory observation.<sup>42</sup> This in turn was reliant on a belief in God as Creator and in the natural world as the creation of God. Therefore, the early founders of science "drew courage for their pioneering efforts from their belief in a personal and rational Creator. The handiwork of such a Supreme Being had to be rational and therefore investigable in a manner satisfying the stringent demands of reason."<sup>43</sup> But why would a belief in a personal and rational Creator provoke such confidence in an empirical scientific method? The answer is that the

---

<sup>39</sup> Ibid. 5

<sup>40</sup> Ibid. 6

<sup>41</sup> For this criticism of Brooke, see Stephen John Wykstra, 'Have Worldviews Shaped Science? A Reply to Brooke', in Jitse M. van der Meer (ed.) *Facets of Faith and Science*, 1: *Historiography and Modes of Interaction*, 91-111

<sup>42</sup> Foster, 'The Christian Doctrine of Creation and the Rise of Modern Science', 453

<sup>43</sup> Stanley L. Jaki, *Science and Creation: From Eternal Cycles to an Oscillating Universe* (Edinburgh: Scottish Academic Press, 1974), 130. C.f. Thomas F. Torrance, *The Christian Frame of Mind* (Edinburgh: Handsel Press, 1985), 40. Klaaren argues that this relative consensus lasted into the 18<sup>th</sup> century. (Eugene M. Klaaren, *Religious Origins of Modern Science: Belief in Creation in Seventeenth-Century Thought* (Grand Rapids, MI: Eerdmans, 1977), 37)

creation of a personal and rational Creator would possess two important qualities that would make such a method possible; it would be (vii) contingent and (viii) rational.

(vii) The basis of our argument lies in the doctrine of creation. In the Judaeo-Christian tradition, God creates *ex nihilo*. God is to be understood as radically distinct from all aspects of the natural order; he is the Creator, and so he is “not challenged or complemented by any force or principle.”<sup>44</sup> In affirming creation solely by God’s efficacious will, Scripture describes the sovereignty and precedence of God over all aspects of the natural order.<sup>45</sup> The doctrine of creation in following Scripture affirms the divine freedom and the createdness of the world;

Creation in time is an evidence of God’s absolute freedom to create.<sup>46</sup>

This becomes important in the rise of the natural sciences because it underlies the voluntarist motif in the beliefs of early scientists.<sup>47</sup> By this we mean that the theological affirmation of the freedom of the divine will is of particular importance.<sup>48</sup> Basically, because creation is a freely willed divine act, then the natural order is created, but also contingent.<sup>49</sup> Unlike the necessitarianism of Greek theology, in claiming the divine freedom in creation Christian theology maintains that the world is “altogether contingent”.<sup>50</sup> More precisely, the world has a ‘double contingency’, in that God is not only free to create or not, but he need not have made *this particular* world which he has made.<sup>51</sup> In Christian theology God has no *external* limitations placed upon his creative freedom, and so we cannot assume that there were no

<sup>44</sup> Jaki, *Science and Creation*, 140

<sup>45</sup> *Ibid.* 147

<sup>46</sup> Stanley L. Jaki, *Cosmos and Creator* (Edinburgh: Scottish Academic Press, 1980), 80

<sup>47</sup> Klaaren, *Religious Origins of Modern Science*, 29

<sup>48</sup> As Foster puts it, this is a theology in opposition to Greek rationalism. On the Christian understanding, the divine will is not wholly subordinate to reason. (Foster, ‘Christian Theology and Modern Science of Nature (II.)’, 5, n1)

<sup>49</sup> Jaki, *Science and Creation*, 356. C.f. Stanley L. Jaki, *The Origin of Science and the Science of its Origins* (Edinburgh: Scottish Academic Press, 1978), 11, and Wolfhart Pannenberg, *Toward a Theology of Nature: Essays on Science and Faith* ed. Ted Peters (Louisville, KY: Westminster/John Knox Press, 1993), 34

<sup>50</sup> E. L. Mascall, *Christian Theology and Natural Science: Some Questions in their Relations* (Hamden, CT: Archon Books, 1965), 92

<sup>51</sup> *Ibid.* 93. C.f. Thomas F. Torrance, ‘Divine and Contingent Order’, in Arthur R. Peacocke (ed.) *The Sciences and Theology in the Twentieth Century* (Stocksfield: Oriel Press, 1981), 81-97, (citation, 85)

alternatives open to the Creator.<sup>52</sup> The consequence of this is another break with Greek thought, in that a world that is contingent upon the divine will *does not contain a deducible pattern*.<sup>53</sup> Therefore, even if we assume that an ideal plan does exist within the mind of God, we have no access to it through deduction. God's ways are simply not our ways.<sup>54</sup> If we cannot deduce, we must investigate empirically, "through asking nature to *reveal itself* to us."<sup>55</sup> However, the doctrine of creation affirms not only the divine freedom, but in denying any sense of Pantheism, it also affirms what Torrance refers to as the *contingent freedom* of the natural order. The contingent world is dependent upon the freedom of its Creator, but this freedom of God is not arbitrary and capricious, but rather it is rational.<sup>56</sup> Therefore, because God is free from fate, necessity and determinism, so the world is also contingently free from these as well.<sup>57</sup> This freedom is expressed in those intrinsic and autonomous principles and properties that must be investigated, empirically, in their own right.<sup>58</sup>

(viii) Alfred North Whitehead rightly pointed out that a belief in the contingency of the natural order would not be enough to provide confidence in an empirical method. This required a belief in an *ordered* universe and so a personal and *rational* Creator.<sup>59</sup> From this follows the belief that the world, "being the handiwork of a supremely reasonable Person, is endowed with lawfulness and purpose."<sup>60</sup> If there were only contingency and no rationality, then science would be a mere cataloguing

---

<sup>52</sup> John Baillie, *Natural Science and the Spiritual Life* (London: Oxford University Press, 1951), 24 and Foster, 'The Christian Doctrine of Creation and the Rise of Modern Science', 462. C.f. Schwarz, *Creation*, 173. This does not discount the possibility of divine self-limitation.

<sup>53</sup> Baillie, *Natural Science and the Spiritual Life*, 19

<sup>54</sup> *Ibid.* 23

<sup>55</sup> Torrance, *The Christian Frame of Mind*, 24. C.f. Donald M. Mackay, *Science, Chance and Providence* (Oxford: Oxford University Press, 1978), 11

<sup>56</sup> Thomas F. Torrance, *The Ground and Grammar of Theology* (Belfast: Christian Journals, 1980), 57. C.f. Torrance, 'Divine and Contingent Order', 87-88 and C.f. Thomas F. Torrance, *Divine and Contingent Order* (Oxford: Oxford University Press, 1981), 22

<sup>57</sup> Torrance, *The Ground and Grammar of Theology*, 58

<sup>58</sup> Contingency means "the universe has no self-existence and no inherent stability of its own, but is nevertheless endowed by the Creator with an authentic reality and an intelligible order of its own which points beyond itself, and is as such the ground of scientific enquiry." (Thomas F. Torrance, 'Revelation, Creation and Law', *Heythrop Journal*, 37:3 (1996), 273-283, (citation, 274))

<sup>59</sup> Alfred North Whitehead, *Science and the Modern World* (Cambridge: Cambridge University Press, 1926), 17

<sup>60</sup> Jaki, *Science and Creation*, 150



of data, without explanatory or predictive powers.<sup>61</sup> For Christian theology, this is avoided because God is indeed sovereign and omnipotent, but never capricious.<sup>62</sup> God holds, reinforces and sustains the contingent rationality of the natural order.<sup>63</sup> God creates and sustains a cosmos, rather than a chaos, because he is bound by his own nature.<sup>64</sup> Nonetheless, this does not detract from the contingency of the natural order;

It will embody regularities and patterns, since its Creator is rational, but the particular regularities and patterns which it embodies cannot be predicted *a priori* since he is free; they can only be discovered by examination.<sup>65</sup>

Hence we need a balance between contingency and rationality: contingency without regularity makes empirical science impossible, but regularity without contingency makes empirical science unnecessary.<sup>66</sup> It is this combination of contingency, rationality, freedom and stability of the universe that makes the scientific method necessary and possible.<sup>67</sup> Together, this provides what Torrance refers to as a universe of *contingent order*.<sup>68</sup> In other words, Christian theology provided the resources for a belief in “the full reality of matter and the rationality of the contingent.”<sup>69</sup> Therefore, Christian theology provided early science with a confidence in both the possibility (rationality) and necessity (contingency) of empirical investigation. However, we are suggesting something more than a historical relevance of Christian theology for the natural sciences. We are arguing that the world *is* contingent and rational, and this is because it *is* created. Let us move on to discuss the contemporary significance of contingency and rationality for the natural sciences.

---

<sup>61</sup> Mackay, *Science, Chance and Providence*, 11. This of course militates against the inductive (or generalising) aspect of the natural sciences.

<sup>62</sup> Ibid. 12

<sup>63</sup> Torrance, *Divine and Contingent Order*, 23

<sup>64</sup> Mascal, *Christian Theology and Natural Science*, 93-4

<sup>65</sup> Ibid. 93

<sup>66</sup> Ibid. 96. C.f. Torrance, ‘Divine and Contingent Order’, 85

<sup>67</sup> Torrance, *Divine and Contingent Order*, 21

<sup>68</sup> Torrance, ‘Divine and Contingent Order’, 88. C.f. Torrance, *The Christian Frame of Mind*, 23 and Torrance, ‘Revelation, Creation and Law’, 274

<sup>69</sup> Torrance, *Divine and Contingent Order*, 31

(ix) Thomas F. Torrance is one of the relatively few authors to discuss contingency and rationality as not only theological concepts, but also as real attributes of the natural order. We are in very close agreement with his position, and as further support would point to Ian Barbour's discussion of the place of contingency within modern cosmology. The first of these is the contingent existence of the universe itself.<sup>70</sup> For the natural sciences, the existence of the cosmos is not self-explanatory, even if the findings of cosmology were to indicate that only one universe were possible, as this would still not make this universe necessary.<sup>71</sup> Second, we must conceive of the boundary conditions of the universe as contingent. This is exemplified by the theoretical Big Bang, which represents a singularity and so a markedly contingent event. Nonetheless, even if time is understood as infinite, we are still confronted by contingent boundary conditions in the form of an event that provides an unexplained given. Third, and perhaps most importantly for our purposes, Barbour identifies the contingency of the laws of nature. Theories are always provisional and contingent because the universe itself is contingent;

Since the existence of the universe depends upon a reality beyond it, no scientific theory, which is of course couched only in terms taken from within the universe itself, can finally explain everything in that universe.<sup>72</sup>

Even the existence of a Grand Unified Theory or a Theory of Everything is still contingent.<sup>73</sup> In fact, the very regularity described by a natural law must be considered contingent, insofar as this pattern of behaviour "represents a repeatable sequence of events, a sequence that, being temporal, must take place a

---

<sup>70</sup> Ian Barbour, *When Science Meets Religion* (London, SPCK, 2000), 54

<sup>71</sup> Ibid. 54-5. The contingency is not explicable by the natural sciences, but we do not wish to put this forward as a rationale for natural theology. We see precisely this usage in an earlier version of the argument by Aubrey L. Moore;

"If a science of nature is possible, nature must be intelligible, and if intelligible, then rational. And we are at least carried on with irresistible force to the conclusion, that its ultimate explanation must be spiritual, not material." (Aubrey L. Moore, *Science and the Faith: Essays on Apologetic Subjects* (London: Kegan Paul, Trench, Trübner, 1898), 84)

<sup>72</sup> Bruce A. Hedman, 'Cantor's Concept of Infinity: Implications of Infinity for Contingence', *PSCF*, 45:1 (1993), 8-16, (citation, 13)

<sup>73</sup> Barbour, *When Science Meets Religion*, 55

first time before it is repeated and becomes a regular sequence.”<sup>74</sup> Fourth and finally, Barbour and Pannenberg both affirm the contingency of events within the cosmos. For both authors, this entails taking a historical perspective of world processes and regularities, as opposed to the general functioning of lawlike behaviour.<sup>75</sup> Together these contingent features of the cosmos are reflected in the empirical method of the natural sciences, but also in the provisional nature of scientific theory and hypothesis.

(x) Finally, if we wish to argue for a contemporary relevance of Christian theology for contemporary science, we have to account for the absence of any theistic reference within the methods of natural science. The answer to this lies in the contingent freedom or independence that Torrance identifies as a property of a created order in radical distinction (but not isolation) from its Creator.<sup>76</sup> It is this property with which the natural sciences interact;

Natural science, of course, is concerned to explore and account for on-going processes in nature in their autonomous structures, that is, in their contingent rationality as utterly different from the transcendent Reality of God.<sup>77</sup>

If God is the Creator of heaven and earth, then paradoxically *it is to be expected* that descriptions of the behaviour of the created order are to be constructed without explicit reference to God.<sup>78</sup> But how can science function in the face of this paradox? Because the natural sciences *must rely upon, but cannot account for*, the contingency and rationality which the world displays;

---

<sup>74</sup> Pannenberg, *Toward a Theology of Nature*, 21

<sup>75</sup> Barbour, *When Science Meets Religion*, 55. Pannenberg points out that a genuine acceptance of contingency within scientific methodology actually provides a critique of determinism because general regularities can be considered as a chain of events that is irreversible in time. (Pannenberg, *Toward a Theology of Nature*, 22)

<sup>76</sup> Thomas F. Torrance, *Christian Theology and Scientific Culture* (Belfast: Christian Journals, 1980)

117. C.f. Torrance, ‘Divine and Contingent Order’, 85 and Torrance, *Divine and Contingent Order*, 33

<sup>77</sup> Torrance, *The Christian Frame of Mind*, 22. C.f. Torrance, *Divine and Contingent Order*, 26; Torrance, *Christian Theology and Scientific Culture*, 108 and Torrance, ‘Divine and Contingent Order’, 85. This aspect of scientific practice goes under the rubric of methodological naturalism.

<sup>78</sup> Torrance, *Divine and Contingent Order*, 26. C.f. Thomas F. Torrance, ‘Creation, Contingent World–Order, and Time: A Theologico–Scientific Approach’, in M. Wegner (ed.) *Time, Creation and World Order*, (*Acta Jutlandica*, LXXIV: 1. Humanities Series 72. Aarhus: Aarhus University Press, 1999), 206–236, (citation, 218)



Contingency is not the category of scientific explanation, but it is not excluded by it; indeed it is presupposed by it. For the contingent is what explanation seeks to render necessary.<sup>79</sup>

What we are trying to say is that the contingent rationality of the natural order "derives, of course, from its createdness", and so we are justified in arguing that the natural order *is* the created order.<sup>80</sup> The point that is being made here is that there is always a connection between science, or at least a philosophy of nature, and theology. This is because "there can be no doctrine of God which does not at the same time contain or imply a doctrine of the world."<sup>81</sup> However, the opposite is also true, in that our views of nature "are inextricably bound up with doctrines of God."<sup>82</sup> This might seem dubious to scientists who have no involvement in metaphysics in their daily work, but the point is that the very fact that they are carrying out research in the natural sciences means that they have the same implicit or explicit assumptions about the rationality and contingency of the natural order as the early scientists. This is the same as saying that science always rests on a particular understanding of the world, and in turn this always has a theological basis, irrespective of the fact that modern science leaves aside the question of God.<sup>83</sup>

### ***(C) Claiming the Significance of Createdness***

The premise of this thesis is that the enterprise of natural science is only possible because of the rational contingency of the natural order, which is in turn a reflection of its createdness. As such, rational contingency and createdness are two sides of the same coin. It is therefore essential that any theological contribution to the interface must firmly adhere to, and clearly express the createdness of the natural order,

---

<sup>79</sup> Lenn E. Goodman and Madeleine J. Goodman, 'Creation and Evolution: Another Round in an Ancient Struggle', *Zygon*, 18:1 (1983), 3-43, (citation, 30). C.f. Mascall, *Christian Theology and Natural Science*, 99; Torrance, *The Christian Frame of Mind*, 41 and Jaki, *Science and Creation*, 356

<sup>80</sup> Jaki, *The Origins of Science and the Science of its Origins*, 11. C.f. Torrance, *Divine and Contingent Order*, 27 and Torrance, *The Christian Frame of Mind*, 24

<sup>81</sup> Foster, 'Christian Theology and Modern Science of Nature (I.)', 440

<sup>82</sup> TTC, 139

<sup>83</sup> Foster, 'Christian Theology and Modern Science of Nature (I.)', 440

because without this rational contingency is also obscured or ignored, and so both theology and science suffer. This, then, begs the question of how we would ensure that our theological language does protect createdness, especially when interacting with another discipline such as the natural sciences. This requires nothing more than the basic tenets of trinitarian theology although their interconnectedness must be viewed in a certain manner. Moreover, in identifying the forms of theological language that protect createdness, we can also go some way towards identifying theological language which does not. This is also important because it allows us to begin a constructive and dialogical theological contribution to the interface in which createdness is taken seriously. In the light of these three comments our thesis breaks down as follows.

(1) In the first part of this thesis, we shall develop a tool that we call a theological *grammar of createdness*. This grammar represents an 'identikit' of the resources of Christian theology which secure the createdness of the natural order, and is derived from an exposition and critique of the theology of the British theologian Colin E. Gunton. We have chosen his theology because his work presents a particular concern for the doctrine of creation, and the theological description of creatures and createdness, but also because in his work we can find insights into how to recognise theological motifs which are hazardous to createdness.

(2) If we are to demonstrate the effectiveness of our grammar of createdness, and Christian trinitarian theology more generally, for protecting createdness, then we also need to test it. To do this we must examine the effects of ignoring or altering the motifs from our grammar. To this end, we present in our second section a study of the evolutionary Christology of Pierre-Marie-Joseph Teilhard de Chardin. Teilhard's theology represents a comprehensive mystical perspective on evolution, eschatology and Christology, which is both moving and problematic. We shall argue that the difficulties stem precisely from those points at which Teilhard either omits essential elements from our grammar, or utilises motifs that the grammar identifies as hazardous.

(3) Finally, it is not enough simply to point out what we regard as a potential hazard within theology. Rather, we must ensure that we are engaged in constructive criticism. Therefore, in our third and last section we shall briefly discuss some contemporary theological treatments of evolution at the interface, as well as some treatments of evolution within popular science. What we will find here is that there is a potential in this theological material for endangering the createdness of evolution. We shall claim that this is due to a tendency to reduce the scope and efficacy of divine action in evolution, and in particular to argue that sovereign and prevenient divine action is both unnecessary and in some respects undesirable. Through the similar conclusions reached by the popular science material, we shall argue that in both there is a metaphysical - rather than a theological or scientific - warrant for this position on divine action. We close our third section with a discussion of the createdness of evolution in the form of an outline model of divine action in evolution that secures and fully emphasises the intrinsic reality of the natural order and the prevenience of God which is the basis of this intrinsic reality.

(4) We shall conclude in this thesis that if the arguments at the science-theology interface that we have discussed are in any sense representative, then there must be a serious re-consideration of the methodology of this interaction and not just on the subject of evolution. The failure to concentrate implicitly and explicitly on createdness and rational contingency has led Teilhard and contemporary thinkers to discuss evolution and the natural order in a manner which goes beyond the findings of the natural sciences and the theological enterprise. This in turn supports our contention that createdness and so rational contingency are essential for theology, especially when dialoguing with the natural sciences.

## Section 1: Deriving the Grammar of Createdness: The Theology of Colin E. Gunton

### Introduction: The Relevance of Gunton's Theology

(i) In this first section of our thesis we must develop our grammar of createdness. This involves identifying those theological motifs which protect createdness and wherever possible identifying those motifs which threaten createdness. We refer to this interlocking network of theological motifs as a *grammar* of createdness, following Kathryn Tanner's argument that the internal coherence of Christian discourse relies upon the "ruled relations among traditional forms of theological statements".<sup>1</sup> To this end, we have chosen to study the theology of Colin E. Gunton, who until his recent death was Professor of Christian Doctrine at King's College, London.<sup>2</sup> As we examine and critique Gunton's theology, we hope to demonstrate that his thought can provide the ruled relations for our grammar of createdness.

(ii) But why have we chosen to study the work of Gunton? Gunton's theology consists of a wide and varied corpus, spread over some thirty years of theological writing and reflection.<sup>3</sup> However, throughout this time, Gunton's work consistently reveals a concern with the theological description of the world as created, and a concern to interpret other theological doctrines with this strong emphasis in mind. The choice of Gunton's work is therefore a pragmatic choice; his work is by no means unique in its concern to elucidate the doctrine of creation or to secure the createdness of the natural order in other areas of theology.<sup>4</sup> However, the consistency

---

<sup>1</sup> Kathryn Tanner, *God and Creation in Christian Theology: Tyranny or Empowerment?* (Oxford/New York: Basil Blackwell, 1988), 5

<sup>2</sup> For a short autobiography of Gunton's theological education, see Colin E. Gunton, 'Theology in Communion', in Darren C. Marks (ed.) *Shaping a Theological Mind: Theological Context and Methodology* (Aldershot: Ashgate, 2002), 31-37

<sup>3</sup> For an outstanding bibliography, so far complete to 2001, the reader is referred to <http://www.deepsight.org/goscul/fbiblio.htm>

<sup>4</sup> Indeed, Gunton's theology has few radically distinctive characteristics, but the *interdependence* of these characteristics or motifs is very distinctive.

and clarity of Gunton's position makes his work amenable to such a discussion, and therefore the manner in which the motifs in Gunton's theology interrelate is easier to elucidate. Nonetheless, there are pros and cons. The very fact that Gunton emphasises the concept of the creature and creation to such an extent, means that we must often make a rather arbitrary distinction between the doctrine of creation and other doctrines. Moreover, it is well documented that Gunton's treatment of alternative positions to his own is not always as judicious as we might wish. Despite these potential difficulties, Gunton's theology is an ideal (but not a unique candidate) for a grammar of createdness. As we examine the recurring motifs which he argues are essential for createdness and examine the connections he makes between them in different areas of doctrine, then we obtain both the statements and ruled interactions which Tanner argues are indicative of theological grammar. We have divided Gunton's work into the four following subjects or areas:

Chapter 1: The doctrines of God and the God-world relationship

Chapter 2: The doctrine of Creation

Chapter 3: The doctrines of Christology, Soteriology and Pneumatology

Chapter 4: The doctrines of Ecclesiology and Providence

The extent to which the findings of each of these chapters contributes to our later discussion is of course variable. Indeed, apart from our discussion of Gunton's doctrine of Providence, the details of our final two chapters of this section are often peripheral to our concerns. However, it is important to provide the relevant aspects of these in the wider context of Gunton's theology, because the createdness of the natural order is consistently integral to Gunton's thought, and so the reader will hopefully have a more rounded perspective on those features which we will focus on and utilise later.

## Chapter 1: The Doctrines of God and the God-world Relationship

### *Introduction*

We have already pointed out that the importance of Gunton's theology does not necessarily lie in the novel areas of his thought, but rather in how he applies these directly and indirectly to the question of the status of the natural order in relation to God. We see this most clearly in his understanding of trinitarian theology that is quite traditional except for one or two issues, but the whole of which Gunton insists is essential to the true identity of the natural order. To be precise, to truly identify the natural order is to see it as the created order in a relationship with the Creator, and this only occurs when we perceive God's true identity as the triune Creator. It is this constant identifying of the world as created *through* its relationship with God and the consequences of this relationship for the natural order which is symptomatic of Gunton's theology. In this first chapter then we need to examine (A) how Gunton conceives of the triune nature of God and (B) how God relates to the world.

### *(A) The Doctrine of God*

(i) The key to Gunton's trinitarian doctrine, is the manner in which he conceives of the distinction between the divine *ousia* (the being of God) and *hypostaseis* (sing. *hypostasis* - the divine Persons of Father, Son and Spirit). Here he relies heavily on the Cappadocian Fathers, who are generally recognised to have secured this distinction. This distinction is an essential contribution to the theological perception of the being of God, because these terms - which were originally held to be synonymous, referring to being or substance - allowed for *a conception of simultaneous unity and plurality* in the being of God.<sup>1</sup> For Gunton, this breakthrough then resulted in a momentous revising of conceptions of the divine being. In this scheme;

---

<sup>1</sup> PTT, 9. We will see how this distinction and its interpretation affect many aspects of Gunton's theology throughout this essay.



God *is* no more than what Father, Son and Spirit give to and receive from each other in the inseparable communion that is the outcome of their love. Communion is the *meaning* of the word: there is no ‘being’ of God other than this dynamic of persons in relation.<sup>2</sup>

In both Eastern and Western trinitarian theology, Gunton sees an imbalance at precisely this point. For him, the theological dictum that Western thought moves from the unity of the divine being to the threeness of the divine Persons, and that the East moves in the opposite direction, contains a grain of truth. This truth is that either the Persons or the being of God can be overemphasised, and so artificially separated from each other.<sup>3</sup> As we shall see, Gunton’s own method involves affirming instead a fundamental simultaneity – God’s being is the communion of the divine Persons, and *vice versa*.<sup>4</sup> Gunton finds the roots of this conception of simultaneity in the work of the Cappadocians, and so we need to discuss Gunton’s interpretation of their work in more detail.

(ii) Gunton seeks to contextualise the Cappadocian contribution to trinitarian theology in its historical setting. He argues that their work uses the Nicene formulation of *homoousion* as a launch pad. This asserted the consubstantiality or identity in being of the Father and Son, and in turn suggested a new ontological principle wherein “there can be in God a sharing in being which does not subvert his unity.”<sup>5</sup> This involves, according to Gunton, a radical divorce with the Greek philosophy from which the concept is derived. For Greek ontology, “to be is either to be universal or to be individual: that is, being is defined either by virtue of participation in universal form or by virtue of material separation from other beings.”<sup>6</sup> The breakthrough, which stems from insisting that God is Son as well as

<sup>2</sup> Ibid. 10. “[G]od *is* only in the free communion of distinct persons”. (Colin E. Gunton, ‘The Spirit as Lord: Christianity, Modernity and Freedom’, in Andrew Walker (ed.) *Different Gospels* (London: Hodder and Stoughton, 1988), 169–182, (citation, 180)

<sup>3</sup> As Green has pointed out, although Gunton claims that Augustine moves from the oneness to the threeness of God, he refuses to accept this as a general distinction of Western trinitarian theology, nor does he see the opposite movement as characteristic of Eastern theology. (Bradley G. Green, ‘Colin Gunton and the Failure of Augustine: An Exposition and Analysis of the Theology of Colin Gunton in Light of Augustine’s *De Trinitate*’, (PhD Thesis, Baylor University, 2000), 100–101)

<sup>4</sup> For an important articulation of this simultaneity see Christoph Schwöbel, ‘God is Love: The Model of Love and the Trinity’, *NZSTh*, 40:3 (1998), 307–328, (citation, 324). As such, Paul D. Molnar is incorrect to argue that Gunton is trying to affirm that person is more basic than substance. (Paul D. Molnar, *Divine Freedom and the Doctrine of the Immanent Trinity: In Dialogue with Karl Barth and Contemporary Theology* (Edinburgh: T. & T. Clark; New York: Continuum, 2002), 329)

<sup>5</sup> Colin E. Gunton, ‘The Trinity in Modern Theology’, in Peter Byrne and J. L. Houlden (eds.) *Companion Encyclopaedia of Theology* (London: Routledge, 1995), 937–957, (citation, 938)

<sup>6</sup> Ibid. 938

Father, is the introduction of relationality into the concept of the being of God. In short "[G]od's being is defined as a being in relation."<sup>7</sup> The Cappadocians then developed a relational concept into a trinitarian one.<sup>8</sup> This is where the distinction between *ousia* and *hypostasis* comes into play. The Cappadocians can be seen to be "enriching the concept of relationality with one of communion."<sup>9</sup> God's being is understood to be "a being in communion."<sup>10</sup> Therefore, in the specifically Cappadocian contribution to theology Gunton finds the key to simultaneously affirming the distinct Persons of the Trinity, and yet affirming their essential unity;

In a doctrine of God as communion, according to which the three persons by their inter-relationship make up or constitute the being of God, there is no final competition between unity and trinity, because a revised understanding of what it is to be allows it to be realized that God's unity, far from being endangered by his threeness, in point of fact consists in the relational threeness of the particular persons.<sup>11</sup>

This conceptualisation is only possible because "in a relational conception such as this, unity and plurality are understood as complementaries, rather than having to be in some way reconciled."<sup>12</sup>

(iii) Gunton's relational concept of the divine being also involves a relational concept of the divine Persons. This is a vital aspect of our discussion, because it is through this relational concept of being and person that Gunton conceptualises a God-world relationship wherein the createdness of the natural order is secured. The concept of the person is of massive significance for contemporary theology.<sup>13</sup> Gunton's position on this issue is again indebted to Zizioulas and the Cappadocians. For him, the essence of the concept of person is that it is distinct from the concept of 'individual',

---

<sup>7</sup> Ibid. 938

<sup>8</sup> Colin E. Gunton, 'The Spirit in the Trinity', in Alasdair I. C. Heron (ed.) *The Forgotten Trinity*, 3: *A Selection of Papers Presented to the BCC Study Commission on Trinitarian Doctrine Today* (London: BCC/CCBI, 1991), 123–135, (citation, 133)

<sup>9</sup> Gunton, 'The Trinity in Modern Theology', 939

<sup>10</sup> Ibid. 939. The latter part of this quotation refers of course to the famous dictum of Basil of Caesarea.

<sup>11</sup> Ibid. 939. C.f. Colin Gunton, 'Being and Person: T. F. Torrance's Doctrine of God', in Elmer M. Colyer (ed.) *The Promise of Trinitarian Theology: Theologians in Dialogue with T. F. Torrance* (Lanham, Md: Rowman & Littlefield, 2001), 115–137, (citation, 126)

<sup>12</sup> Gunton, 'The Trinity in Modern Theology', 940

<sup>13</sup> For some interesting and non-technical introductory material on recent trends in thought on this concept see the chapter on Zizioulas' theology in Patricia A. Fox, *God as Communion: John Zizioulas, Elizabeth Johnson, and the Retrieval of the Symbol of the Triune God* (Collegeville, Minn.: Liturgical Press, 2001), especially 25–32.



in that “the latter is defined in terms of *separation from* other individuals, the person in terms of *relations with* other persons.”<sup>14</sup> In this way, God is personal “as being three persons in relation, of having his being in what Father, Son and Holy Spirit give to and receive from each other in the freedom of their unknowable eternity.”<sup>15</sup> Personality is not a matter of individual consciousness, but “to be one whose being consists in relations of mutual constitution with other persons.”<sup>16</sup> However, Gunton makes a break with the Eastern Church when it comes to a treatment of the inner-trinitarian personal relationships. Zizioulas (rightly) interprets the Cappadocians as arguing that the unity resides in the Person of the Father. Gunton replies that although this preserves the priority of the Father in the Godhead<sup>17</sup>, it is insufficient for safeguarding the mutual constitution in which, as we have seen already, the unity of the three Persons resides. Gunton describes such mutual constitution in the following terms;

Thus, the three persons are distinguished *from* one another by their different relations *to* one another – as, respectively, begetter, begotten and proceeding – and these relations constitute their ways of being who they distinctively are.<sup>18</sup>

Therefore, unlike Zizioulas, Gunton does not see the divine unity as stemming from the Person of the Father.<sup>19</sup> Nonetheless, this unity does not reside purely in the homogeneity or singularity of the divine being. It resides in the divine being, but as a being-in-communion.

<sup>14</sup> PTT, 10-11. This avoids the suggestion that “there is something logically or – more importantly – ontologically more primitive in terms of which persons can be defined.” (BB2, 238)

<sup>15</sup> PTT, 164

<sup>16</sup> Ibid. 164

<sup>17</sup> A point which Gunton recently reaffirmed. (FSH, 73-74)

<sup>18</sup> BB2, 227-228. C.f. PTT, 165

<sup>19</sup> Zizioulas is insistent on this, and sees a substantialist position as the only alternative. (John D. Zizioulas, ‘On Being a Person: Towards an Ontology of Personhood’, in Christoph Schwöbel and Colin E. Gunton (eds.) *Persons, Divine and Human: King’s College Essays on Theological Anthropology* (Edinburgh: T. & T. Clark, 1991), 33-46, (citation, 40, n13). For a Catholic perspective on Zizioulas’ argument, and a comparison of his thought with a more Western view, see Ralph Del Colle, ‘Person and Being in John Zizioulas’ Trinitarian Theology: Conversations with Thomas Torrance and Thomas Aquinas’, *SJOT*, 54:1 (2001), 70-86

*(B) The Doctrine of the God-World Relationship*

In this subsection we will see the beginnings not only of Gunton's recurring reliance on trinitarian concepts, but also of the recurring significance of the God-world relationship for his wider theology. Here these two emphases meet, because Gunton argues that the God-world relationship involves a gifting of a metaphorical ontological 'space' to the world, and that this reflects the mutual gifting of 'space' in the inner-trinitarian relationships. Here we also find the first of Gunton's discussions of the theological motifs we must avoid if we are to maintain the createdness of the natural order.

(i) To begin with, let us ask with Gunton, "What flows from the conception of God as three persons in communion, related but distinct?"<sup>20</sup> The most important consequence is that we have "a conception of *personal space*: the space in which three persons are for and from each other in their otherness."<sup>21</sup> The keys here are space and otherness; the inner-trinitarian relationships entail the giving of space in which there can be an other. Thus Gunton can say of the Persons that;

They thus confer particularity upon and receive it from one another. That giving of particularity is very important: it is a matter of space to be. Father, Son and Spirit through the shape – the *taxis* – of their inseparable relatedness confer particularity and freedom on each other. That is their personal being.<sup>22</sup>

Gunton then extrapolates this giving of space within a personal relationship to the God-world relationship. The God-world relationship is therefore seen as "the giving of being to the other, and that includes *the giving of space to be*: to be *other* and *particular*".<sup>23</sup> Therefore the two elements of space and otherness in Gunton's trinitarian theology are also pivotal motifs in his understanding of the God-world relationship. Here we must conceive of a space in which there can be a world, i.e.

<sup>20</sup> PTT, 113. The point here is that Gunton's doctrine of creation is based on his trinitarian theology. As Bavinck puts it, "If God were not triune, creation would not be possible." (Hermann Bavinck, *In the Beginning: Foundations of Creation Theology* (ed. John Bolt, tr. John Vriend) (Grand Rapids, MI: Baker Books, 1999), 39)

<sup>21</sup> Ibid. 113. To see Gunton's reliance on Barth for this see Colin E. Gunton, 'The Triune God and the Freedom of the Creature', in S. W. Sykes (ed.) *Karl Barth: Centenary Essays* (Cambridge: Cambridge University Press, 1989), (citation, 48)

<sup>22</sup> PTT, 113

<sup>23</sup> Ibid. 113. My italics. C.f. Gunton, 'The Triune God and the Freedom of the Creature', 59 and TCF, 5

that which is other than God, because “the world’s otherness from God is part of its space to be itself, to be finite and not divine.”<sup>24</sup> This secures the Creator-creature distinction, and is integral to the concept of a natural order possessing contingent rationality.

(ii) We should also notice that for Gunton the God-world relationship secures the otherness of the natural order, but this relationship is *ongoing*. This prevents the distinction between God and the world from decaying into mere separation, i.e. Deism. Nonetheless, because this ongoing relationship does ensure this distinction, it also avoids Pantheism, or an identification of the world with God. For Gunton ‘otherness’ entails a sense of reality, of concrete existence. The world is other than God and yet it is not illusory or unreal, because it has an authentic *relative freedom* (*Selbständigkeit*) through this ongoing relationship with God.<sup>25</sup> The point of understanding this freedom as relative is that we must understand this freedom to be dependent upon God’s *prior* freedom. Moreover, God’s giving of freedom to the natural order is in no way seen to *impinge upon God’s own personal space*; it involves no external limitation.<sup>26</sup> The world is not a threat to God’s reality, or *vice versa*.

(iii) What are the alternatives to an understanding of the God-world relationship in which the otherness and relationality of God and the world are affirmed? Gunton perceives only two live options - Deism and Pantheism. However, Gunton regards these as false opposites, and argues that both in fact have the same effect within theological discussion, in that they remove any notion of the createdness of the natural order. In other words, Deism, like Pantheism, confuses the creaturely and

<sup>24</sup> PTT, 114. C.f. TCF, 11 and 47. This is of course not a negative judgement; indeed, as Schwarz argues, there is nothing inherently divine in the natural order, but “therein consists its actual dignity.” (Schwarz, *Creation*, 169)

<sup>25</sup> Colin E. Gunton, ‘Creation and Mediation in the Theology of Robert W. Jenson: An Encounter and a Convergence’, in Colin E. Gunton, (ed.) *Trinity, Time, and Church: A Response to the Theology of Robert W. Jenson* (Grand Rapids, MI: Eerdmans, 2000), 80-93, (citation, 90). C.f. TTC, 101, 124, and 145. The use of the term ‘relative’ is vital here. The world is distinct from the divine being, but it has no independent existence. (Bavinck, *In the Beginning*, 230) A creature by definition is “a completely dependent being: that which does not exist *of* itself and cannot for a moment exist *by* itself either.” (Ibid. 245)

<sup>26</sup> However, Gunton argues that it is appropriate to call creation a *self-giving*, “in which out of the free, overflowing goodness of his life he gives reality and form to something that is other than he, simply for its own sake.” (TAA, 149) The act of creation is also logically a self-limitation in the sense in which having become Creator, God can no longer be the One who has never created.

divine realities. To understand Gunton's position here, let us look at his brief treatment of the notably deistic position of Newtonianism.<sup>27</sup> This is epitomised in the pre-eminence of the metaphor of the machine to describe the nature of the universe, wherein we find "a conception which excluded meaningful divine action altogether."<sup>28</sup> Gunton acknowledges that this apparently supports the concept of the world's createdness, because it does prevent Pantheism. However, on such an understanding God is pushed to the margins and is effectively redundant. Therefore, there is no room for a discussion of divine action, which for Gunton is different from not mentioning any divine action *within* the natural order; it is rather to transfer the language of divine action *to* the natural order. Consequently, Newtonianism led to "a new pantheism, in which the machine serves effectively as the deity."<sup>29</sup> Let us take a closer look at what Gunton perceives to be going on here.

(iv) This conceptual divinisation of the world can be understood more clearly in the context of the doctrine of creation. In Christian theology, God is Creator. Only God can be so. To *deny* this is to say that the world is *self*-created. It is not to ignore the question; it is to say that the world is God, or at least displays this divine attribute. Therefore, the underlying issue for Gunton is whether "the universe is in some way divine, in the sense that it accounts of itself", or is it the creature of God?<sup>30</sup> Because Christian theology affirms that God is Creator, creation is attributed "not to chance or mechanism but to some form of intentional action."<sup>31</sup> The alternative is to elevate chance or mechanism to *divine* status. Gunton identifies another example of such divinisation in popular science. He singles out genetic determinism as a case in point. For him 'the selfish gene' is much more than a metaphor for the influence of genetic factors on biological development and behaviour. It is a form of anthropomorphism, a Pantheism where the world itself seems to be imbued with "divine or creative powers."<sup>32</sup> Mary Midgley sees this as an animistic personification of the gene as "a

<sup>27</sup> Colin E. Gunton, 'The Doctrine of Creation', in Colin E. Gunton (ed.) *The Cambridge Companion to Christian Doctrine* (Cambridge: Cambridge University Press, 1997), 141-157, (citation, 151)

<sup>28</sup> 'The Doctrine of Creation', 152. C.f. TTC, 128 and David A. Pailin, 'Truth in a Heresy? 2. Deism', *Expository Times*, 112:4 (2001), 112-116, (citation, 116)

<sup>29</sup> TTC, 137

<sup>30</sup> *Ibid.* 37

<sup>31</sup> Colin E. Gunton, 'The End of Causality? The Reformers and their Predecessors', in Colin E. Gunton (ed.) *The Doctrine of Creation: Essays in Dogmatics, History and Philosophy* (Edinburgh: T. & T. Clark, 1997), 63-82, (citation, 63)

<sup>32</sup> TTC, 37. C.f. TCF, 27. He asks "[w]hat else is the widespread proclamation of the gospel of the hegemony of the genes but a return to the view that impersonal fate directs our lives?" (Colin E.

malign and all-powerful agent.”<sup>33</sup> The language of personal agency is not jettisoned, but is rather *transferred to the creation itself*.<sup>34</sup> Crucially, Gunton also sees this at work in treatments of evolution, whereby the process is virtually deified;

Thus the words ‘nature’ and ‘evolution’ are often hypostasised – and, indeed, capitalised – almost as if they are agents that achieve ends, and thus clearly operate as secularised versions of the doctrine of providence, which they displace.<sup>35</sup>

---

Gunton, ‘Trinity and Trustworthiness’, in Paul Helm and Carl R. Trueman (eds.) *The Trustworthiness of God: Perspectives on the Nature of Scripture* (Grand Rapids, MI/Cambridge, Eerdmans, 2002), 275-284, (citation, 276) In Deism and Pantheism, “secondary causes infringe on the immediacy of God’s being and power.” (David S. Clark, ‘Theology and Evolution’, *Princeton Theological Review*, 23 (1925), 193-212, (citation, 196)

It is interesting to note that a geneticist can describe genes as ‘gods’ because of their functions and spheres of influence which are usually associated with deity, with his tongue only slightly in his cheek. (John C. Avise, *The Genetic Gods: Evolution and Belief in Human Affairs* (Cambridge, MA; London: Harvard University Press, 1998), 3)

<sup>33</sup> Mary Midgley, *Evolution as a Religion: Strange Hopes and Stranger Fears* (London: Methuen, 1985), 123. For a fuller account of this criticism, c.f. idem. ‘Gene-juggling’, *Philosophy*, 54/210 (1979), 439-458. Here we find the following wonderful sentence; “Genes cannot be selfish or unselfish, any more than atoms can be jealous, elephants abstract or biscuits teleological.” (Ibid. 439) For a more temperate discussion see idem. ‘Selfish Genes and Social Darwinism’, *Philosophy*, 58/225 (1983), 365-377. C.f. Simon Conway Morris, *Life’s Solution: Inevitable Humans in a Lonely Universe*, (Cambridge: Cambridge University Press, 2003), 323 for more references. He argues that the arguments of the ultra-Darwinists such as Dawkins involve “the misuse of metaphor, and more importantly a distortion of metaphysics in support of an evolutionary programme.” (Ibid. 314). Michael Poole argues that even if Dawkins is being merely rhetorical or metaphorical then he is still inconsistent. There is an illegitimate use of language if “a creating God is denied while a creating chance (+ natural selection) is affirmed.” (Michael Poole, ‘A Critique of Aspects of the Philosophy and Theology of Richard Dawkins’, *S&CB*, 6:1 (1994), 41-59, (citation, 54)). Even Henry Ward Beecher, with his extraordinarily optimistic social Darwinism recognised this point, when he argued that to deny the operation of divine intelligence and work in matter “would be giving miscellaneous matter the attributes which we denied to a personal God.” (Henry Ward Beecher, *Evolution and Religion Part 1: Eight Sermons, Discussing the Bearing of Evolutionary Philosophy on the Fundamental Doctrines of Evangelical Christianity* (London: James Clarke; New York: Fords, Howard and Hulbert, 1885), 112) For a partial defence of metaphor in evolutionary description see John R. Durant, ‘Evolution, Ideology and World View: Darwinian Religion in the Twentieth Century’, in James R. Moore (ed.) *History, Humanity and Evolution: Essays for John C. Greene* (Cambridge: Cambridge University Press, 1989), 355 – 373, (citation, 360)

<sup>34</sup> TTC, 38

<sup>35</sup> Ibid. 38. C.f. Ibid. 185-187; TCF, 26; Donald M. MacKay, *The Clockwork Image: A Christian Perspective on Science* (Leicester: Inter-Varsity Press, 1997), 52 and Stephen Jay Gould, *Hen’s Teeth and Horse’s Toes* (London: Penguin, 1984), 160. “Evolution has to do with the *how* and not the *why*, of phenomena. Evolution is a method not an agent.” (George Park Fisher, *The Ground of Theistic and Christian Belief* (London: Hodder and Stoughton, 1902), 49). Darwin’s theory of evolution “concerns the *order* and not the *cause*, the *how* and not the *why* of the phenomena”. (Asa Gray, ‘Natural Selection not Inconsistent with Natural Theology’, in *Darwinia: Essays and Reviews Pertaining to Darwinism* ed. A. Hunter Dupree (Cambridge, MA: The Belknap Press of Harvard University Press, 1963), 72-145, (citation, 122)). George Gaylord Simpson makes the classic case for such evolution-based Deism. He argues that adaptation “turns out to be basically materialistic, with no signs of purpose as a working variable in life history, and with any possible Purposer pushed back to the incomprehensible position of First Cause.” (George Gaylord Simpson, *The Meaning of Evolution: A Study of the History of Life and of its Significance for Man* (New Haven: Yale University Press, 1951), 230)



This is a conflation of the natural sciences with theology. The natural sciences are by their very nature unable to discuss the existence or otherwise of God.<sup>36</sup> However, we have a misappropriation of theological constructs and their application to the natural order. When this happens the createdness (and so the rational contingency!) of the natural order is lost from view. This is Deism, but it has an equivalent effect to a pantheistic identification of God and the world. Science cannot find God within an equation but the attempt specifically to exclude the triune God results in bad science, just as surely as the attempt to identify the triune God *with* the equation does.<sup>37</sup> Without an implicit awareness of the creaturely nature of the natural order (i.e. a respect for its rational contingency) then empirical science must import theological motifs into its reasoning. As Kathryn Tanner points out, Deism is a theological judgement, not an empirical one.<sup>38</sup>

(v) It is important to remember that for Gunton, the 'space' afforded to the world through an ongoing relationship with its Creator is to be understood as *a metaphor*. When this is not clearly the case, he discerns another potential hazard for our understanding of this relationship. His concern centres upon the idea of space as denoting *a fixed or quantitative space*, which he argues leads to an interpretation of the God-world relationship in terms of relative quantities for both the world and God. For Gunton, a symptom of this is the inability simultaneously to affirm divine immanence and divine transcendence, and he identifies Spinoza and Descartes as prime culprits. Spinoza explicitly uses spatial motifs but cannot utilise them in a manner that can protect the nature of the created order as created. For Gunton, Spinoza's spatial understanding of the God – world relationship is almost *purely* spatial and thus *competitive*; i.e. for Spinoza God as infinite must exclude the finite;

<sup>36</sup> Michael Poole, 'Response to Richard Dawkins' Reply', *S&CB*, 7:1 (1995), 51-58, (citation, 52)

<sup>37</sup> On this, see the alarming article by Vern Sheridan Poythress, 'Why Scientists Must Believe in God: Divine Attributes of Scientific Law', *JETS*, 46:1 (2003), 111-123, where, amongst other things, natural laws can be described as omnipresent, eternal (Ibid. 114), omnipotent and universal (Ibid. 115)!

<sup>38</sup> Tanner, *God and Creation in Christian Theology*, 89. This deism has such radical influences on our thinking because it distorts the Creator-creature distinction, which is as Abraham Kuyper pointed out the most central and "distinctly marked" boundary is that between Creator and creature. (Abraham Kuyper, 'Pantheism's Destruction of Boundaries Part One', *Methodist Review*, (1893), 520-535, [Online document] <http://www.ucalgary.ca/~nurelweb/papers/other/panth-2.html>). C.f. Bavinck, *In the Beginning*, 23

So it is with Spinoza's God: either he must be finite, because limited (spatially) by something else, and so not God at all; or infinite at the expense of the independent reality of every thing else<sup>39</sup>

In this tradition, "transcendence and immanence tend to be mutually exclusive" because spatial terms lead to associations of quantity.<sup>40</sup> The mechanistic philosophy of Descartes is only apparently in opposition to Spinoza's reasoning. Whilst it is true that Descartes himself wanted to affirm a constant divine immanence in the world, others emphasised the mechanistic nature of the world as he conceived it, and realised that therein God's functions would be limited. The initial use of the problematic machine metaphor to describe the world has transferred agential language to the natural order, and so "either God *is* the machine (Spinoza) or he is totally transcendent at its beginning."<sup>41</sup> There is no room - or 'space' - for both a genuine Creator and a genuine creature. In fact, we might say there is only *one* space, a fixed degree of reality to be apportioned between God and the natural order. Furthermore, God and the world occupy this one space in the same manner and so "[G]od becomes one being among others within a single order."<sup>42</sup> On a spatial or quantitative understanding of the God – world relationship, Pantheism is unavoidable, as it occurs overtly or reflexively as Deism.<sup>43</sup> Therefore, Pantheism and Deism are only apparent opposites; in neither can the world be seen as the world. The world *loses* its reality and is identified with God, either because it gains reality at God's expense or because it has no independent existence due to a precise identification with God. For Gunton, an adequate doctrine of creation affirms that God creates a natural order that is other than, but not opposed to himself.<sup>44</sup>

(vi) In some instances, the concept of space as a quantitative measure is identified with space-time itself. This is the position known as Panentheism. Process thought comes in for some criticism from Gunton on this issue because he deems it to be

<sup>39</sup> Colin E. Gunton, 'Transcendence, Metaphor, and the Knowability of God', *JTS*, 31:2 (1980), 501-516, (citation, 506)

<sup>40</sup> *Ibid.* 507

<sup>41</sup> *Ibid.* 507. C.f. E. C. Dewick, *The Indwelling God: A Historical Study of the Christian Conception of Divine Immanence and Incarnation, with Special Reference to Indian Thought* (London: H. Milford; Oxford University Press, Indian Branch, 1938), 274-275

<sup>42</sup> Tanner, *God and Creation in Christian Theology*, 45. For an excellent description of this competitive understanding of the God-world relationship as a consequence of deism, see Bavinck, *In the Beginning*, 242. Similarly, he understands pantheism as either an idealist swallowing up of the world in God, or a *materialist swallowing up of God in the world*. (*Ibid.* 237)

<sup>43</sup> Gunton, 'Transcendence, Metaphor and the Knowability of God', 508

<sup>44</sup> AAB, 47



utilising a competitive understanding of immanence and transcendence, such that “here immanence is primary, and transcendence picks up such crumbs as fall from the rich man’s table.”<sup>45</sup> On a literally spatial, or a spatial/static interpretation of the God–world relationship, such as Panentheism, one cannot affirm the reality of one without the reality of the other being imperilled.<sup>46</sup> The difficulty of such positions is that there is an implicit assumption that the externality of God to the created order (which is more or less the aim of the transcendence motif) must come at the cost of the divine immanence or presence within the world. Gunton, on the other hand, argues that “it is possible to conceive a created world that is external to God and which does not yet exclude interrelationship and omnipresence.”<sup>47</sup> For Gunton, Panentheism cannot avoid Pantheism, as it does not allow the natural order the space *to be itself*, which the notion of an external creation preserves. Furthermore, Panentheism usually works on the idea of whole and parts, which *implies ontological continuity*.<sup>48</sup> Gunton’s treatment of Panentheism is a little brisk to say the least, so let us briefly discuss one contemporary panentheistic theology in order to highlight what the potential strengths and weaknesses of this position might be.

(vii) In order to examine Panentheism we shall discuss the work of noted philosopher and contributor to the science-theology interface, Philip Clayton. For Clayton, Panentheism is necessary in order to address the difficulties with an ‘externalist’ (i.e. creation as an external act of God) view of the God-world relationship, which he deems to have been highlighted by contemporary science. On the externalist account, divine action must be interventionist and this would wreak havoc on natural regularities, as God would have to set aside his own laws in order to act. Furthermore, the externalist view of God perceives him to be a being so different that we can have little understanding of his nature, his relationship to the world, and his

<sup>45</sup> Gunton, ‘Transcendence, Metaphor and the Knowability of God’, 508-509. C.f. Ibid. 510. Moreover, A. P. F. Sell argues that Process Theology cannot prevent this immanentism from degrading into pantheism. (A. P. F. Sell, ‘Autonomy, Immanence and the Loss of Authority’, *Churchman*, 96:2 (1982), 123-141, (citation, 129))

<sup>46</sup> TTC, 140. Gunton has in mind in particular Moltmann’s doctrine of the *zimsum* or spatial self-withdrawal of God to make room for the creation. (Ibid. 141) For more on Gunton’s refusal to accept such a kenotic doctrine of creation, see CAC, 85

<sup>47</sup> TTC, 141

<sup>48</sup> Ibid. 142. Gunton argues that the panentheistic model of the world as God’s body leads to Pantheism;

“If the world is God’s body, it is not finite and contingent, for it participates in divinity rather than being truly itself.” (FSH, 21, n4)

agency.<sup>49</sup> In short there is a need to rethink divine agency for a world in which “direct physical causality [by God] in the natural world as we have come to understand it is massively more difficult”.<sup>50</sup> The difficulty inherent in conceiving of divine agency on an externalist understanding is that it must be interventionist.<sup>51</sup> Where this is the case, Clayton argues that a God-of-the-gaps strategy is in use.<sup>52</sup> Moreover, whatever dwindling prospects for divine action can be found within such a scheme are scuppered by the findings of natural sciences, which perceive the world to be closed thermodynamically (i.e. the conservation of energy).<sup>53</sup> Finally, interventionist understandings of divine action imply that God’s actions are essentially repairs to an otherwise functioning system in which God *cannot* act except through intervention.<sup>54</sup>

If an externalist view of divine action is unacceptable, then the search is on for an ‘internalist’ and non-interventionist view. To avoid any suggestion of intervention requires us to view even inner-worldly causality as a manifestation of divine agency.<sup>55</sup> This is of course the aim of Panentheism. However, this leaves us with the need to search for an analogy of the God-world relationship that describes divine action in such a manner.<sup>56</sup> The panentheistic or internalist alternative sees God’s agency and relationship with the world as analogous to that of the mind-body relationship.<sup>57</sup> Put briefly, Clayton is advocating a form of *emergent monism* or a non-dualistic understanding of the mind-body relationship, and this in turn provides the basis for the analogy with the God-world relationship.<sup>58</sup> Panentheism therefore does away with any suggestion of intervention;

<sup>49</sup> Philip Clayton, ‘Panentheism Internalism: Living within the Presence of the Trinitarian God’, *dialog*, 40:3 (2001), 208-215, (citation, 211)

<sup>50</sup> Philip Clayton, ‘On the Value of the Panentheistic Analogy: A Response to Willem Drees’, *Zygon*, 35:3 (2002), 699-704, (citation, 701). However, as we shall see in our third section, the rationale for this supposed difficulty is never thoroughly explored at the interface.

<sup>51</sup> Philip Clayton, ‘The Case for Christian Panentheism’, *dialog*, 37:3 (1998), 201-208, (citation, 206)

<sup>52</sup> Clayton, ‘Panentheism Internalism’, 208

<sup>53</sup> Clayton, ‘Panentheism Internalism’, 209 and Philip Clayton, ‘Neuroscience, the Person, and God: An Emergentist Account’, in *NTP*, 181-214, (citation, 209)

<sup>54</sup> Philip D. Clayton, *God and Contemporary Science* (hereafter GCS) (Edinburgh: Edinburgh University Press, 1997), 100

<sup>55</sup> Clayton, ‘The Case for Christian Panentheism’, 206

<sup>56</sup> GCS, 100

<sup>57</sup> Clayton, ‘Panentheism Internalism’, 212; GCS, 101; Clayton, ‘On the Value of the Panentheistic Analogy’, 702 and Clayton, ‘The Case for Christian Panentheism’, 205

<sup>58</sup> See GCS, 248 and *passim* and Clayton, ‘Neuroscience, the Person, and God’, 209

It suggests a model not of God “breaking into” the world from outside but of God being organically related to the world as we are organically related to our own bodies.<sup>59</sup>

The reason for this is that divine agency is now somewhat redefined. If the universe is analogous to the body of God, then it is “the focal point of his agency.”<sup>60</sup> God does not need to intervene because all natural processes are in fact God at work.<sup>61</sup> Every worldly act is therefore a divine act.<sup>62</sup> Indeed, the regularities of natural law are then descriptions of the regularity of divine actions.<sup>63</sup> Clayton likens this to the regularity of autonomic, unconscious bodily functions, although he is not consistent as to the unconscious nature of such action.<sup>64</sup> Regardless of this, he does consistently maintain that God does act in discrete and conscious acts.<sup>65</sup>

If we are to be able to make this quite radical identification of divine and creaturely processes, then in terms of the God-world relationship we must as far as possible remove the ontological gap between God and natural processes whilst maintaining the concept of God as Creator.<sup>66</sup> For Clayton, this intensified intimacy within the God-world relationship, coupled with his panentheistic/internalist emphasis leads to an affirmation of the identity of space with the divine omnipresence.<sup>67</sup> He argues that we must think of space and time in such a way that “their origin within God becomes clear.”<sup>68</sup> In short, theologically speaking, “space must be understood also as an attribute of God, and hence as part of God.”<sup>69</sup> Therefore, space and the natural order are not outside God; rather, by definition, they are within God.<sup>70</sup> Space must be understood in a manner similar to that of absolute space in Newton’s thought – i.e. that of a sensorium of God. Space is therefore “a framework imposed by God on what he perceives in so far as he perceives it as not identical with himself.”<sup>71</sup>

---

<sup>59</sup> Clayton, ‘On the Value of the Panentheistic Analogy’, 703

<sup>60</sup> Clayton, ‘The Case for Christian Panentheism’, 205-206

<sup>61</sup> Clayton, ‘Panentheism Internalism’, 209

<sup>62</sup> Ibid. 212

<sup>63</sup> GCS, 101. C.f. Clayton, ‘The Case for Christian Panentheism’, 206

<sup>64</sup> GCS 101. C.f. Clayton, ‘The Case for Christian Panentheism’, 206 and Clayton, ‘Panentheism Internalism’, 212

<sup>65</sup> Clayton, ‘The Case for Christian Panentheism’, 206 and Clayton, ‘Panentheism Internalism’, 212

<sup>66</sup> Ibid. 209. C.f. Philip Clayton, ‘The Panentheistic Turn in Christian Theology’, *dialog*, 38:4 (1999), 289-293, (citation, 291)

<sup>67</sup> GCS, 90

<sup>68</sup> Ibid. 89

<sup>69</sup> Ibid. 89

<sup>70</sup> Ibid. 89

<sup>71</sup> Ibid. 89

The suggestion that space and divine omnipresence are one and the same may smack of Pantheism, a danger that Clayton is well aware of.<sup>72</sup> To safeguard against such a danger, he advocates an understanding of the God-world relationship, based not on the externality of God to his creation, but on the traditional theological distinctions of “finite versus infinite, contingent versus necessary, imperfect versus perfect - created versus Creator.”<sup>73</sup> With these and an insistence on the love and perfection of God<sup>74</sup>, we can affirm that we are distinct from God because we are “different *in our fundamental nature* from God.”<sup>75</sup> If this is the case, then the question of our location is no longer of issue; even if we perceive ourselves to be within the divine presence, or even the divine being, we are still creatures. In this way, we can think of God as coextensive with the world, such that all spatial points are within God, and still maintain that all such spatial points are created and contingent. God is absolute and can contain within himself all of finite space without the world becoming identical with himself.<sup>76</sup>

This understanding of the God-world relationship also involves a greater emphasis on the passivity or passibility of God, especially as it is discussed particularly in Process Thought. An external God might remain unaffected by his creation, but a God who in some sense holds the world within himself cannot view it without dispassionately. However, Panentheism also rejects any conception that reduces God to his responses, because this would threaten the contingency of the world and God’s necessary existence.<sup>77</sup> In other words, God is responsive, but he is more than his responsiveness. In Process terms, worldly events and activity do not affect the perfection or essential nature of God, but they do contribute to the responsive nature of God, i.e. “that “part” of God that emerges out of God’s response to the universe and to humanity.”<sup>78</sup> The contribution made by this insight is the realisation that a responsive God is more fully God than a dispassionate God.<sup>79</sup> Panentheism enables us to conceive of God as necessary, the world as contingent, but also that there is genuine openness within history and world process.<sup>80</sup> For Clayton, Panentheism

---

<sup>72</sup> Ibid. 102

<sup>73</sup> Ibid. 90

<sup>74</sup> Clayton, ‘Panentheism Internalism’, 210

<sup>75</sup> GCS, 90

<sup>76</sup> Ibid. 90

<sup>77</sup> Ibid. 94

<sup>78</sup> Clayton, ‘Panentheism Internalism’, 215

<sup>79</sup> Ibid. 215

<sup>80</sup> GCS, 95

provides the resources for a more compassionate, even self-sacrificing understanding of God. For example, Clayton wants to advocate a self-limitation of divine self-omniscience, and Panentheism is the key to this. He argues that such a self-limitation is necessary in order for God to relate more fully to finite creatures. However, it is also integral to Clayton's Panentheism, as such self-limitation is necessary if we are to understand divine action as analogous to human agency.<sup>81</sup>

If we turn now to critique Clayton's Panentheism, the first point must be the inherent difficulties that lie within the Panentheistic Analogy (PA) of the mind-body relation. The difficulty here is simply that if the mind-body relationship is perceived to be strictly non-dualistic (e.g. emergentist), then this is to advocate a direct Pantheism as the God-world relationship.<sup>82</sup> Maintaining our focus on the corporeal aspects of the PA, we find there is a difficulty in Clayton's inconsistent description of worldly regularities as analogous to autonomic bodily functions. As with the mind-body analogy, Clayton has stark choices to make. If worldly regularities are autonomic, then they are not only *unconscious*, they are *unwilled*, leading to the question as to whether they are in fact beyond God's control.<sup>83</sup> On the other hand, if these processes are conscious and intentional divine acts<sup>84</sup>, then they are no longer autonomous, and the necessity for a bodily analogy is somewhat attenuated.

Second, Clayton's important emphasis on the reality of the natural order and the processes and entities within it seems to rely occasionally on a competitive God-world. Robert W. Jenson has argued recently that it is insufficient to rely on the classical pairings, as Clayton does. He gives the example of will, and shows that, for example, the concept of an infinite will is self-contradictory, as will involves choosing one set of conditions over another, and thus a degree of self-limitation. Furthermore, the eternal/temporal distinction leads rather too easily into a competitive understanding, because time and eternity here become merely *opposites*, and are as such construed to be on one equal ontological plane.<sup>85</sup>

---

<sup>81</sup> Clayton, 'Panentheism Internalism', 211

<sup>82</sup> Owen C. Thomas, 'Not Yet a Case for Christian Panentheism', *dialog*, 38:4 (1999), 285-287, (citation, 287)

<sup>83</sup> Kevin J. Vanhoozer, 'The Case Remains Unproven', *dialog*, 38:4 (1999), 281-285, (citation, 283)

<sup>84</sup> Clayton, 'The Panentheistic Turn in Christian Theology', 290

<sup>85</sup> Robert W. Jenson, 'Creator and Creature', *IJOST*, 4:2 (2002), 216-221, (citation, 217)



Clayton also attempts to highlight the Creator-creature distinction by noting some disanalogies within the PA. The first of these is that God is 'more' than the world, in that his consciousness and awareness are greater than the world.<sup>86</sup> Second, God pre-exists the universe and will outlast it, "even if the divine experience becomes richer through the course of cosmic evolution."<sup>87</sup> As such, he can liken the God-world relationship to that between an ecosystem and its components, with the proviso that this system precedes its components.<sup>88</sup> This notion of the divine 'more than' is rather problematic. It appears to function as an equivalent to divine transcendence, but seems incapable of warding off Pantheism, because the world is identified with that aspect of God which is not 'more than' the world. As Robert W. Jenson has pointed out, such a notion of transcendence means a transcending of the world; a way of understanding how God *makes* himself distinct from the world.<sup>89</sup> Therefore, Clayton's caveats are potentially self-contradictory; one affirms the divine pre-existence and the other lacks the motifs (especially divine transcendence) to support this. Here we see how vital the motif of transcendence is, because in the light of this, God does not need to act to transcend the world, "since he does not start from it."<sup>90</sup> This is not to deny divine immanence, but to affirm transcendence and immanence simultaneously.

In Clayton's thought, there seems to be a diminution, or even abandonment, of any sense of mediation in the God-world relationship, and this seems to affect his ability to maintain transcendence and immanence. Clayton can go so far as to describe the God-world relationship as "a participation of the created order in God in a manner than is at least analogous to the co-participation of Father, Son and Spirit in the one Godhead."<sup>91</sup> In conjunction with Clayton's explicit identification of space and divine omnipresence,<sup>92</sup> there is a strong sense here that time and space are divinised. Moreover, Clayton argues that Panentheism reinterprets the *sensus divinitatis*, the sense of the divine within individual humans in such a way that we are not only

---

<sup>86</sup> Clayton, 'The Case for Christian Panentheism', 206

<sup>87</sup> Clayton, 'On the Value of the Panentheistic Analogy', 703

<sup>88</sup> GCS, 91. This whole-part conception of the God-world relationship will become much more apparent when we address the Panentheism of Arthur Peacocke in Section 3 of this thesis.

<sup>89</sup> Jenson, 'Creator and Creature', 218

<sup>90</sup> Ibid. 218

<sup>91</sup> Clayton, 'Panentheism Internalism', 214

<sup>92</sup> Clayton argues similarly that because of this identification, every interaction within the world is part of the divine being. (Clayton, 'The Case for Christian Panentheism', 206)

within God, but metaphorically speaking, we *are* God.<sup>93</sup> The difficulty here is that as Jenson puts it, the Creator-creature distinction “is not patient of analogy”; even metaphorically we are not the Creator and nor is God a creature.<sup>94</sup> It is worth noting at this juncture that Gunton seemingly appreciates the emphasis on the idea of internalism providing that the Creator-creature distinction can be preserved. However, this is creation “within *Christ*”, not within God “*simpliciter*.”<sup>95</sup> This is based on Colossians 1:16, wherein Gunton finds that the God-world relationship is best understood in the person of him who is “the externalization in the world of the one who mediates all the Father’s creating and redeeming action.”<sup>96</sup> In other words, in the one who is the paradigmatic and determinative form of the relation between God and the world.<sup>97</sup>

(viii) The strength of Panentheism lies in its powerful depiction of the intimacy and immanence involved in the God-world relationship. However, we noted that this scheme could not balance this against the transcendence of God, and so engendered a competitive understanding of God and the world. In short, transcendence and immanence could not be simultaneously maintained, because space is understood in quantitative terms. With this in mind, let us now examine a position in which this quantitative apportioning of ‘space’ is weighted in favour of creaturely reality.

As with Clayton, Maurice Wiles also perceives a difficulty in articulating the reality of divine action for our modern culture. In this scientific era of observed physical regularity in nature, we face the difficulty of explicating “how and where that action is to be located or identified within the world of human experience.”<sup>98</sup> For Wiles, the beginnings of a solution are to be found in highlighting the reality of creaturely action;

Why should it not be the case that God has bestowed on created realities not only their natural capacities for action but also the power to move themselves to action independently of specific divine agency in each case?<sup>99</sup>

<sup>93</sup> GCS, 102. C.f. Gregory R. Peterson, ‘Whither Panentheism?’, *Zygon*, 36:3 (2001), 395-405, (citation, 399)

<sup>94</sup> Jenson, ‘Creator and Creature’, 218

<sup>95</sup> Gunton, ‘Creation and Mediation in the Theology of Robert W. Jenson’, 91-92

<sup>96</sup> Ibid. 92

<sup>97</sup> Ibid. 92

<sup>98</sup> M. Wiles, *God’s Activity in the World* (London: SCM, 1986), 41

<sup>99</sup> Ibid. 20



This is not to be seen as something that confronts and limits the divine reality. Instead, God has freely chosen to create a world in which his power is *deliberately* restrained.<sup>100</sup> This creaturely freedom must also be accompanied by a modified understanding of what we understand to be the nature of a divine act. A divine ‘act’ is to be seen as a unifying and unitary occurrence, and should be understood “in relation to the world as a whole rather than to particular occurrences within it.”<sup>101</sup> The whole, continuing process of bringing the world into being is this one action of God.<sup>102</sup> Wiles recognises that such a conception has far-reaching consequences. Because we are speaking of one unitary divine act, we can no longer *individuate this act* relative to specific occurrences in the physical world;

It is therefore a questionable enterprise to try to speak of God’s agency in relation to particular physical occurrences, as if that were something that could be done in even relative separation from the question of their contribution to the one act that constitutes the world as a whole.<sup>103</sup>

Wiles is advocating a radical view of creaturely independence from specific divine activity; he uses the analogy of improvised drama, in which the actors are merely provided with general characters and a general setting in which to interact.<sup>104</sup> There is a further suggestion of competitiveness, in that Wiles also perceives the need for a reinterpretation of divine omniscience and omnipotence, especially as for him foreknowledge implies predetermination.<sup>105</sup> Although Wiles does not expand on this much further, the inference is clear; God has freely created a world in which his omniscience is limited. However, creaturely freedom also inhibits divine omnipotence further than this. Miracles, or *direct divine intervention*, are also logically under the rubric of God’s free self-limitation.<sup>106</sup> Hence in terms of personal Providence, we must also be careful to avoid talk of specific and interventionist actions.

It is obvious that Wiles’ is not intending to be deist. There *is* a unitary divine action, but at the very least, Wiles is never clear as to its context in the God–world

---

<sup>100</sup> Ibid. 22

<sup>101</sup> Ibid. 28

<sup>102</sup> Ibid. 29

<sup>103</sup> Ibid. 31

<sup>104</sup> Ibid. 37–38

<sup>105</sup> Ibid. 63

<sup>106</sup> Ibid. 67

relationship. From what we have seen so far, we would argue that this relationship is being conceived of in spatial and static terms, and as evidence for this we would cite his examination of two major models of God and divine action. The first model is the *personal* model, where God is Creator, Lord, Father, but where it is difficult to describe divine agency. The second model is the *pervasive* model, where God is Spirit, an immanent power in the world. This model allows one to talk of universal and effective presence, but agency language becomes “forced and inappropriate.”<sup>107</sup> What makes Wiles’ discussion of these issues revealing is that these two models are understood to be somehow *mutually exclusive*. To the extent that God is knowable, and presumably therefore immanent, God is incapable of action. On the other hand, to the extent that God is active, this action is so transcendent and divorced from the natural order that it can reveal nothing about the divine actor. In contrasting transcendence and immanence, Wiles reveals a competitive understanding of the God-world relationship in which his emphasis on divine transcendence and creaturely efficacy virtually drains away any sense of divine action and involvement, and certainly removes the sense of specific divine acts. The problem with this is that this makes the concept of divine action to be vacuous, because if God wills or acts uniformly in every event, then every event can just as easily be defined without reference to divine action.<sup>108</sup> As such, it is effectively denying the reality of divine action.<sup>109</sup> Wiles chooses to affirm the divine transcendence and accepts an attenuated form of divine action, such that it becomes effectively a subjective notion.<sup>110</sup>

### (C) Critique

Gunton’s specifically trinitarian theology has probably provoked a more comprehensive and prolonged criticism than any other aspect of his thought. This is due in part to his interpretation of the work of the Cappadocian Fathers, and also because of his treatment of what he sees as the weaknesses of the Western tradition, which leads to his allegiance to the Cappadocians. Before we can even begin to

<sup>107</sup> Maurice Wiles, ‘Providence’, *Epworth Review*, 21 (1994), 76-83, (citation, 83)

<sup>108</sup> Vincent Brümmer, ‘Farrer, Wiles and the Causal Joint’, *Modern Theology*, 8:1 (1992), 1-14, (citation, 7)

<sup>109</sup> James S. Nelson, ‘Divine Action: Is It Credible?’, *Zygon*, 30:2 (1995), 267-280, (citation, 269)

<sup>110</sup> Maurice Wiles, ‘Religious Authority and Divine Action’, *Religious Studies*, 7 (1971), 1-12, (citation, 5)

discuss these issues in any depth we must make mention of what we might call a methodological criticism of Gunton.

(i) A recurring line of attack on Gunton's thought has centred on some of his treatment of those thinkers with whose work he interacts – especially with those he disagrees with. Gunton's tendencies are perhaps best summed up by Fergus Kerr in a recent review.<sup>111</sup> He claims that Gunton “seems unable to elaborate the correct view – his own – except by constantly rubbishing the supposedly utterly unacceptable alternative”.<sup>112</sup> This tendency of Gunton must be kept in mind as it is the source of a number of potentially difficult treatments of other authors.

(ii) Gunton's relational trinitarian theology has also received some criticism from Keith Ward. He advocates a conception of God in which we must acknowledge that God has “a given nature, which is not chosen, but which God possesses of necessity.”<sup>113</sup> Ward argues that God cannot choose all aspects of this nature in complete freedom, because there must logically be a nature, which is the source of choice. Ward's criticisms are aimed at the thought of Zizioulas, but because of the close connectivity between his work and that of Gunton, there is some significance in this criticism for our purposes. Ward attacks Zizioulas' contention that with the concept of the (trinitarian) person, we find a concept that denotes freedom from ‘ontological necessity’.<sup>114</sup> Ward argues that this claim is incoherent in that “if the person is a cause, then it must have properties in virtue of which it is a cause...So the person must have a nature, which it does not freely choose.”<sup>115</sup>

This is not strictly speaking a question which Gunton addresses one way or another. However, Ward does seem to be equating the necessity of the divine *ousia* and whatever properties can therefore be attributed to the divine being with an explicitly substantialist understanding of the divine *ousia*. For Ward, the divine being is

<sup>111</sup> Fergus Kerr, Review of *Intellect and Action: Elucidations on Christian Faith*, in *New Blackfriars*, 82/962 (2001), 197–200

<sup>112</sup> Ibid. 197. This is possibly due to the lecture-based format of Gunton's books. (William H. Shaw IV, ‘The Trinitarian Theology of Colin Gunton: A Contribution to the Development of an Interpretive Tool and Model for the Theological Engagement of Culture’, (M.A. Thesis, Trinity Evangelical Divinity School, 2000), 101–2). For more on Gunton's potentially hazardous readings of Augustine see Lewis Ayres, Review of Colin E. Gunton, *The Promise of Trinitarian Theology*, in *JTS*, 43 (1992), 780–782 and idem. ‘Augustine, the Trinity and Modernity’, review of Colin E. Gunton, *The One, the Three and the Many*, in *Augustinian Studies*, 26:2 (1995), 127–133

<sup>113</sup> Keith Ward, *Religion and Creation* (Oxford: Clarendon Press, 1996), 171

<sup>114</sup> Ibid. 179

<sup>115</sup> Ibid. 179–180

ontologically and/or logically prior to the Persons, insofar as it is the source of the attributes of the divine Persons. Gunton would of course differ from Ward at this point, because he argues for what we have referred to as a simultaneity of *ousia* and *hypostasis*, denoted by the motif of being-as-communion.<sup>116</sup> This does not necessarily contradict Ward's argument as to the givenness of divine attributes. There is also a crucial difference between Gunton and Zizioulas that militates against the effectiveness of Ward's criticism if it is levelled against the former. The difference is that Gunton, unlike Zizioulas, does not find the unity of the triune being in the Person of the Father.<sup>117</sup> Unity and particularity are found together in the divine perichoretic being-as-communion, perfected by the Spirit.

(iii) One of the rare thoroughgoing critiques of Gunton's work is an article by Richard M. Fermer, which challenges Gunton's theology as it pertains to the interpretation and appropriation of the theology of the Cappadocian Fathers.<sup>118</sup> Here Fermer critiques what he sees as a general 'trinitarian methodology' for theology, and in particular the work of its two leading proponents, Gunton and Zizioulas. Fermer has a three-pronged attack upon:

- (a) the patristic sources used by Zizioulas and Gunton
- (b) the move from the ontology of God to general ontology, and the conditions of the trinitarian analogy
- (c) the appropriateness of the trinitarian analogy between divine and human persons.<sup>119</sup>

We can address the first two of these challenges in this chapter, and reserve the last for chapter 3. Fermer's threefold scheme here is his breakdown of the arguments of authors such as Gunton and Zizioulas. First, there is the move from revelation to the

<sup>116</sup> C.f. John D. Zizioulas, 'The Doctrine of the Holy Trinity: The Significance of the Cappadocian Contribution', in Christoph Schwöbel (ed.) *Trinitarian Theology Today: Essays on Divine Being and Act* (Edinburgh: T. & T. Clark, 1995), 45-60, (citation, 48) and idem, 'On Being a Person', 41

<sup>117</sup> This difference is highly significant. John G. F. Wilks has set out a number of problems associated with Zizioulas' argument on this subject, attributing it to a desire to obviate the need to acknowledge the divine *ousia* altogether. (John G. F. Wilks, 'The Trinitarian Ontology of John Zizioulas', *Vox Evangelica*, 25 (1995), 63-88) Wilks acknowledges that Gunton's argument differs markedly at this point, and exonerates Gunton from this charge. (Ibid. 79)

<sup>118</sup> Richard M. Fermer, 'The Limits of Trinitarian Theology as a Methodological Paradigm', *NZSTh*, 41:2 (1999), 158-186

<sup>119</sup> Ibid. 160

doctrine of the Trinity.<sup>120</sup> Second, this doctrine is augmented by the ‘revolutionary’ insights from the Cappadocians.<sup>121</sup> Third, there is a move from trinitarian theology to a general ontology of creation, in which it is understood that “for anything to be is for it to be-in-relation (to the triune God).”<sup>122</sup> The conclusion to this process is the legitimisation of a movement to the doctrine of creation and ultimately to a trinitarian or relational theology.<sup>123</sup>

(a) Fermer’s first step then is to examine the appropriation of Cappadocian thought by Gunton and Zizioulas. Fermer argues that both authors clearly believe that there is such a thing as *a* Cappadocian theology, and that they also *select* certain key concepts (*koinonia* and *schesis*) from the trinitarian thought of the Cappadocians without explanation.<sup>124</sup> However, of particular concern to us, is Fermer’s argument that Gunton and Zizioulas reduce the concept of *ousia* to *koinonia*.<sup>125</sup> The significance of this for us, is that it implies an emptying of ontological content from the concept of communion;

As a result of this reduction of *ousia* to *koinonia*, the concept of *ousia* seems subsequently to be absent from Gunton’s/Zizioulas’ trinitarian theology.<sup>126</sup>

Fermer explicitly equates Gunton’s disavowal of an understanding of *ousia* as *substantia* with a disavowal of the Cappadocian stress on *ousia* as general divine essence. He asks;

Why can it not be held that there is one God, and that certain attributes are shared in common between the three hypostaseis of that one God, yet not purely as a result of their relationality, but because of their common *ousia*, which provides the grammar of unity?<sup>127</sup>

In conjunction with this, Fermer claims that there is an unwarranted prioritising of the particular over the universal. Fermer sees this as a contradiction of the Cappadocian endeavour(s) to “achieve a harmony, a balance between the oneness of

---

<sup>120</sup> Ibid. 160-161

<sup>121</sup> Ibid. 161-162

<sup>122</sup> Ibid. 162

<sup>123</sup> Ibid. 163

<sup>124</sup> Ibid. 164

<sup>125</sup> Ibid. 165

<sup>126</sup> Ibid. 166

<sup>127</sup> Ibid. 166

God, the unity and distinctness" in their anti-Sabellian and anti-Eunomian work.<sup>128</sup> It seems that Fermer views Gunton's project as a threat to this balance, in that it lacks a unifying element that a concept of *ousia* provides.

This provides three questions we must pose to Gunton. (1) does his work lack a conception of *ousia*, (2) does it reduce *ousia* to *koinonia* and (3) does it actually threaten the Cappadocian balance between unity and distinctness? We would respond in the negative to all three of these questions. First, we would argue that Gunton is not disputing the Cappadocian usage of *ousia* to explicate the divine unity; instead, he is reinterpreting what *ousia* means. The divine being is being-as-communion. For Fermer, this involves a reduction of being to communion. In response to this assertion, we should remember Gunton's interpretation of the Cappadocian argument in which it is claimed that there is *no more* to the being of God than his being-as-communion. However, the same is true of the divine *koinonia*. Inasmuch as this tells us *nothing* of the nature of God *except* that he is a being-in-communion, then being and communion are not conflated.<sup>129</sup> Fermer seems to think that Gunton is trying to tell us something of the 'what' of the divine *ousia*,<sup>130</sup> but this is simply not the case. Lastly, Gunton locates the unitary nature of the divine being in the *simultaneity* of *ousia* and *koinonia*,<sup>131</sup> and affirms that this is reliant upon a relational conception where "unity and plurality are understood as complementaries, rather than having to be in some way reconciled."<sup>132</sup> From this we deduce that Fermer is mistaken in arguing that Gunton has failed to appreciate the balancing role of the Cappadocian adherence to the concept of *ousia*.

(b) Fermer then moves on to discuss the validity of the move to general ontology that is made by Gunton and Zizioulas. The question that applies to both authors is what is the condition of the analogy whereby one moves from trinitarian to general ontology?<sup>133</sup> Fermer argues that Gunton's thought impairs the mystery of the divine being.<sup>134</sup> He acknowledges that Gunton upholds the doctrine of the Immanent

<sup>128</sup> Ibid. 166-167

<sup>129</sup> A point which Zizioulas argues is to be found in the theology of the Cappadocian Fathers. (John D. Zizioulas, 'The Doctrine of the Holy Trinity', 49)

<sup>130</sup> Fermer, 'The Limits of Trinitarian Theology', 175. A similar criticism is made by Paul D. Molnar. (Molnar, *Divine Freedom*, 320)

<sup>131</sup> A point apparently unappreciated by Paul D. Molnar in some recent criticism. (Ibid. 319 and 321)

<sup>132</sup> Gunton, 'The Trinity in Modern Theology', 940

<sup>133</sup> Fermer, 'The Limits of Trinitarian Theology', 171

<sup>134</sup> Ibid. 174



Trinity, but claims that Gunton has failed to grasp that this entails that God's presence in the economy of salvation is equally true to his transcendence and mystery. Fermer argues that the explicit identification of the divine *ousia* as the communion of the three Persons is verging on the kataphatic – we simply are not in a position to say this;

There is a fine distinction to be drawn between saying that God exists as Father, Son and Holy Spirit, and saying that God's essence *is* the communion of the trinitarian *hypostaseis*.<sup>135</sup>

This criticism is not specific to Gunton. It is an example of a wider disquiet aimed towards so-called social doctrines of the Trinity, in which relationality is emphasised. One of the main criticisms levelled at these is that such doctrines are used explicitly or implicitly to advocate a certain understanding of human society or politics. Karen Kilby rightly describes such a manoeuvre as simple projection, whereby “the claim that God though three is yet one becomes a source of metaphysical insight and a resource for combating individualism, patriarchy and oppressive forms of political and ecclesiastical organization.”<sup>136</sup> She specifically identifies Gunton amongst the culprits, but quite correctly notes, just as Fermer does, that he uses such derived concepts for metaphysical rather than political purposes.<sup>137</sup> Indeed, Gunton notes precisely this danger, arguing that we cannot affirm, “on the basis of a doctrine of the immanent or ontological Trinity, causes the theologian believes, for whatever reason, to be worthy ones.”<sup>138</sup> Fermer has identified a very real danger, but it would appear to be misdirected accusation with regard to Gunton.

## **Conclusion**

In this chapter we have set the scene for Gunton's doctrine of creation proper, and his treatments of other traditional areas of dogmatic theology, such as Christology and Soteriology. These cannot be understood outside of a preliminary study of Gunton's doctrine of God, and his theology of the God-world relationship. As far as a grammar of createdness is concerned, the key words are Trinity and space. God is

<sup>135</sup> Ibid. 175

<sup>136</sup> Karen Kilby, ‘Perichoresis and Projection: Problems with Social Doctrines of the Trinity’, *New Blackfriars*, 81/956 (2000), 412-445, (citation, 438)

<sup>137</sup> Ibid. 438

<sup>138</sup> FSH, 24



triune and within this triune communion is a space for the personal divine other. However, space is also a metaphor for describing the freedom and intrinsic reality of the creature, which the natural order enjoys through its ongoing relationship with the Triune God. Through the concept of space, we learn something of the nature of this relationship between God and the world, and in particular the manner in which we must and can avoid Deism, Panentheism and Pantheism. The assorted critiques of Gunton's theology that we have so far examined demonstrate that already there are some deep underlying tensions within Gunton's theology. From a purely pragmatic point of view, the greatest of these is a tendency to blast any perceived opposition without adequately explaining the reasoning for this at the very least. Hence, his very real blind spot concerning the theology of Augustine, and Aquinas to a lesser extent. As we have seen so far, this has led him to miss out on a number of potentially very fruitful encounters with these thinkers. Nonetheless, this does not imply that his alternative, based on the thought of the Cappadocian Fathers, is without merit.

## Chapter 2: The Doctrine of Creation

### *Introduction*

In the previous chapter we opened our discussion of Gunton's theology with the doctrinal linchpin of the Trinity, and then moved on to discuss the God-world relation and the consequences of God's trinitarian nature for this and the nature of the relationship between Creator and creature. We also made reference to the fact that for Gunton these two important sets of motifs are also significant for all other aspects of his work, because the created order and created entities are never discussed out with the context of their relationship to God. This will become apparent in the present chapter as we move on to discuss the traditional heart of the doctrine of creation, namely creation out of nothing and the characteristics of created entities. In particular, to understand Gunton's position on creation out of nothing we need first to elaborate on how it is that God can and does provide a 'space' for the natural order. Moreover, Gunton's discussion of the nature of created entities and the created order itself is a somewhat controversial scheme in which the very fact that the world is created by, and exists only within an ongoing relationship with God imposes certain characteristics upon the natural order.

### *(A) Creation ex nihilo*

In the previous chapter, we left our discussion of Gunton's understanding of the God-world relationship with his discussion of the intrinsic weaknesses and strengths of Deism, Panentheism and Pantheism. Now we can move on to discuss the details of his alternatives to these positions. The basic weakness in all three of these positions is an underlying assumption that God and the world are in some sense within one ontological plane or 'space'. We described the resultant conceptions of the God-world relationship as the static and/or spatial co-ordinations of two competing entities. Unsurprisingly then, Gunton's solution involves not only a reinterpretation

of the nature of this 'space', but also a reinterpretation of transcendence and immanence.

(i) The first stage of Gunton's solution is his redefinition of transcendence and immanence as *otherness* and *relation*, respectively. God is transcendent, utterly different from the world, and yet is immanently related towards and in the world. Transcendence and immanence are not in competition – indeed, the divine immanence is itself founded on the divine transcendence. Gunton wishes to affirm a *dynamic* and not a *spatial* understanding of divine transcendence;

Transcendence on this account will not be something God possesses in greater or less quantity, at the expense of his immanence, but something he *is* and *does*.<sup>1</sup>

The evidence for this lies in the awesome divine immanence of the Incarnation of the Son of God. Here we have a freedom of revelation and of dynamic immanence. God reveals himself in the man Jesus Christ and yet remains free.<sup>2</sup> Following Barth, Gunton argues that God is radically transcendent, and so radically free "*in order to be* radically immanent."<sup>3</sup> God's otherness guarantees his relatedness with the world.<sup>4</sup>

(ii) An adequate conception of createdness must eschew Deism and Pantheism, but it must emphasise the truths which underlie both of these positions – i.e. the distinction and relation between God and the world, respectively.<sup>5</sup> However, it is not enough

<sup>1</sup> Gunton, 'Transcendence, Metaphor and the Knowability of God', 511. As A. P. F. Sell puts it, "the notion of transcendence has...much more to do with God's character than with his location." (A. P. F. Sell, 'Transcendence, Immanence and the Supernatural', *JTSA*, 26 (1979), 56-66, (citation, 61)

<sup>2</sup> Gunton, 'Transcendence, Metaphor and the Knowability of God', 513. As Paul D. Molnar correctly points out, it is this immanence - rather than immanence understood as an abstraction - which safeguards against drawing the world too close in pantheistic fashion. (Molnar, *Divine Freedom*, 127). C.f. PTT, 149. God's transcendence is based on freedom, not mere outsideness. (TTT, 128)

<sup>3</sup> BB1, 195. C.f. Gunton, 'Transcendence, Metaphor and the Knowability of God', 514 and Sell, 'Autonomy, Immanence and the Loss of Authority', 132

<sup>4</sup> TTT, 119, n29. C.f. Sell, 'Transcendence, Immanence and the Supernatural', 60 and Tanner, *God and Creation in Christian Theology*, 46

<sup>5</sup> Grace Lee Paik claims that the weakness of Panentheism lies precisely in its inability to support otherness and relation. (Grace Lee Paik, 'An Analysis of Sallie McFague's Metaphorical Theology

simply to affirm that the God-world relationship consists of otherness-in-relation.<sup>6</sup> We need to grasp more clearly how divine action fits into this scheme. On a deistic understanding of the God-world relationship, divine action is occasional and interventionist. More to the point, it rapidly becomes irrelevant and unnecessary, as we saw in the thought of Maurice Wiles. On a pantheistic or panentheistic understanding, divine action cannot be readily distinguished from creaturely action. It is certainly the case that divine action cannot be identified in terms of discrete acts, hence Clayton's problematic references to autonomic functions. In either case, divine action becomes difficult to conceptualise and we are left with an otiose God or the world as an emanation of God. The grammar of createdness requires divine action, as well as otherness-in-relation. Gunton tackles this head-on, by arguing that the God-world relationship itself is manifested *as* divine action;

The relation of God to the creation, which is expressed in creation, reconciliation and redemption, is grounded in the other-related love of the Father, Son and Spirit in eternity.<sup>7</sup>

The point to be made here is that a discussion of the God-world relationship requires a language of involvement, action and enabling - i.e. free relatedness *and* action. Only thus do we understand the intrinsic reality of the created order because such *enabling* demonstrates that the world is "not simply a tool or an extension of deity."<sup>8</sup> We shall refer to this aspect of Gunton's theology as *action-in-relation*.<sup>9</sup> Therefore the God-world relationship, and thus the Creator-creature distinction is the continuing result of a divine act of relating, and of continuing divine acts through the divine relationality.<sup>10</sup> Finally, there is the implication that something specific and indeed purposeful is brought about, as we shall see in more detail later on.

---

with Special Reference to Gunton's Trinitarian Theology of Creation' (MA Thesis, Trinity International University, 2000), 137

<sup>6</sup> Gunton also uses the terms relation in otherness (PTT, 147), and duality-in-relation (TCF, 11), but the point behind the terms remains the same.

<sup>7</sup> TTT, 128

<sup>8</sup> CAC, 78

<sup>9</sup> For further evidence of this see Ibid. 84; OTM, 159 and FSH, 31

<sup>10</sup> Although referring to an *act* of divine relating may seem to make us a hostage to philosophical or theological criticism, we are attempting to convey the freedom of God within the God-world relationship. Although Gunton argues that it is natural for God to be in relation to the world, this must still remain a free action of God, otherwise it is also a necessary relationship.

(iii) In the God-world relationship there is otherness-in-relation, but this is not otherness as the opposition of equals. It is *God's* otherness that guarantees the otherness, the authentic created reality, of the natural order.<sup>11</sup> This reveals what is perhaps the most fundamental and yet least articulated motif of the God-world relationship. This is the *prior*ness or prevenience of God, which underlies everything that we have said on the God-world relationship and createdness.<sup>12</sup> God *is* before the world, God creates the world and God holds the world in being. To be a creature is to be affirmed, not threatened by this God who is 'before' all things, because God's transcendence or otherness is "the otherness that enables God to be free of envy of the autonomy of the creature."<sup>13</sup> In other words, it is God's prior freedom that guarantees creaturely freedom.<sup>14</sup> The doctrine of creation does imply a relative creaturely independence and human freedom, but these rest on the otherness-in-relation found in the Creator-creature relationship.<sup>15</sup>

(iv) How do we relate abstract concepts such as transcendence and immanence to what is a personal and specific relationship between God and the world? This is the function of the doctrine of the Immanent Trinity. This doctrine is the attempt to safeguard the reality of the trinitarian revelation of God, by arguing that the threefold divine action in salvation history (the Economic Trinity) reveals that God is Trinity (Immanent Trinity). The alternative is modalism, wherein God is only apparently Trinity, as each 'Person' active in salvation history is a mask or character of the unitary divine being. The doctrine of the Immanent Trinity has two important consequences for a discussion of the God-world relationship.

---

<sup>11</sup> "The closer the world is tied up with the immanence of God, the more it loses its otherness and therefore its autonomy and freedom to be itself." (Gunton, 'The Spirit as Lord', 181) Gunton has an extended discussion of this subject through his identification of God's otherness with his holiness. (TCF, 49, 55 and 190)

<sup>12</sup> However, Gunton does clearly affirm a doctrine of divine sovereignty. For instance see BB2, 236

<sup>13</sup> Colin E. Gunton, 'Barth, the Trinity, and Human Freedom', *Theology Today*, 43:3 (1986), 316-330, (citation, 327)

<sup>14</sup> See on this issue, EAA, 96

<sup>15</sup> IAA, 160. C.f. PTT, 146

First, it affirms the divine freedom. In this doctrine we are able to affirm that “because God is ‘before’ creation took place, already a being-in-relation, there is no need for him to create what is other than himself. He does not need to create, because he is already a *taxis*, order, of loving relations.”<sup>16</sup> As we have seen already, this divine freedom alone is the guarantee of the freedom of the creature, in that “[o]nly if God has freedom of action do we also.”<sup>17</sup> Second, the doctrine articulates the non-competitive relationship between transcendence and immanence. For Gunton, the divine transcendence guarantees the divine immanence, and more importantly for our discussion here, *his immanence does not exhaust his transcendence*. The point of the doctrine is to affirm that what we say of the being of God (the Immanent Trinity) must be governed by God’s self-revelation (the Economic Trinity), whilst not going so far as to say that “God is only the economy.”<sup>18</sup> For instance, we need to say that God is eternal and yet he acts in time. To perceive God as nothing other than the one who acts in time is to ignore the divine eternity, and so lose the distinction between God and the world.<sup>19</sup> Here direct Pantheism threatens.<sup>20</sup> As Gunton puts it, without the Immanent Trinity, we have relation without otherness.<sup>21</sup> Overall, the doctrine enables us to account for the personal space between God and the world.<sup>22</sup>

We can see how the doctrine of the Immanent Trinity functions in this way by focusing on the issue of divine-human relationality. Gunton argues that Catherine LaCugna’s explicit dismissal of the Immanent Trinity runs the risk of transforming

<sup>16</sup> PTT 147. C.f. TCF, 187. In denying or at least degrading the distinction between the Immanent and the Economic Trinity, Catherine LaCugna cannot affirm this divine freedom. Hence, she confuses the necessary (innertrinitarian) divine relationality with that divine relationality *ad extra*. As such, “God is constituted *as God* by having a real relation to creation.” (Catherine LaCugna, ‘The Relational God: Aquinas and Beyond’, *Theological Studies*, 46 (1985), 647-663, (citation, 661)

<sup>17</sup> IAA, 103. C.f. PTT 147

<sup>18</sup> IAA, 103. C.f. Paul D. Molnar, ‘Some Dogmatic Implications of Barth’s Understanding of Ebionite and Docetic Christology’, *IJOST*, 2:2 (2000), 151-174, (citation, 152)) and Paul D. Molnar, ‘The Function of the Immanent Trinity in the Theology of Karl Barth: Implications for Today’, *SJOT*, 42:3 (1989), 367-399, (citation, 398)

<sup>19</sup> TCF, 184

<sup>20</sup> FSH, 24

<sup>21</sup> Colin E. Gunton, Review of Ted Peters, *GOD as Trinity: Relationality and Temporality in Divine Life*, in *Theology Today*, 51:1 (1994), 174-176, (citation, 176)

<sup>22</sup> IAA, 103. Paul D. Molnar rightly argues that unless we have a distinction between the Immanent and the Economic Trinity then we have two theological difficulties, “1) the idea that creation arises from God’s nature, and 2) the idea that God needs the world.” (Paul D. Molnar, Experience and Knowledge of the Trinity in the Theology of Ted Peters: Occasion for Clarity or Confusion?, *Irish Theological Quarterly*, 64:3 (1999), 217-243, (citation, 229)) Both of these are inimical to a concept of the createdness of the world.



divine-human relationality into one (and so one ontological) communion.<sup>23</sup> Joy Anne McDougall argues that Gunton circumvents this difficulty not by explicitly invoking the doctrine of the Immanent Trinity, but by stressing the *analogical* content of human personhood in its relation to the divine.<sup>24</sup> Therefore, Keith Ward's dismissal of the doctrine as "internal goings-on within a wholly self-contained and self-sufficient Godhead." misses the point.<sup>25</sup> The doctrine of the Immanent Trinity affirms the freedom of God to be the one who is actively involved in the world without his being pantheistically reduced to this activity.

(v) We have already noted that for Gunton, the freedom of the creature is based on the freedom and transcendence of God.<sup>26</sup> If this is so then certain understandings of immanence (for instance and perhaps most obviously, a pantheistic immanence such as we find in Spinoza) may be detrimental to our understanding of creaturely freedom. Gunton has in mind the common tendency to correlate immanence with the presence and work of the Spirit, especially in the form of Spirit-Christologies, such as that of Lampe.<sup>27</sup> This leads Gunton to suggest that we must distinguish broadly between *christological immanence* and *pneumatological transcendence*. To be more specific, in Christ, we see a free and sovereign *identification* of God with a part of his world. The Spirit, however, is to be seen as freedom *over against* and *in relation* to creation.<sup>28</sup> This enables us to avoid a pantheistic understanding of divine action or the God-world relationship. Creation is through the Son "who is the mediator of God's self-relatedness to that which is not himself", but it is also in the Spirit, "which means by God's relation to it in otherness."<sup>29</sup> However, these distinctions must not be understood as some kind of divorce between Son and Spirit, and so require further qualification;

<sup>23</sup> FSH, 24

<sup>24</sup> Joy Anne McDougall, 'Lä\_t sich die Praktische Bedeutung der Trinitätslehre Wiedergewinnen? Neue Horizonte in der Anglo-Amerikanischen Diskussion', *Evangelische Theologie*, 58:3 (1998), 231-242, (citation, 240). C.f. 241

<sup>25</sup> Ward, *Religion and Creation*, 328

<sup>26</sup> For more on this see Gunton, 'The Triune God and the Freedom of the Creature', 61

<sup>27</sup> Ibid. 62

<sup>28</sup> TCF, 10. C.f. Gunton, 'Barth, the Trinity, and Human Freedom', 328; TTT, 113 and 122; TTC, 170; IAI, 6; AAB, 77-78 and Ben Engelbrecht, 'The Indwelling of the Holy Spirit. Part II: A Contemporary Statement', *JTSA*, 31 (1980), 36-45, (citation, 40)

<sup>29</sup> CAC, 90



But even as immanent, the incarnate Word, as the one who confronts us, is also transcendent, as our atoning Other; and, by a corresponding logic, by his involvement in the redemption of matter, the Spirit is, in a manner of speaking, immanent...<sup>30</sup>

In Gunton's thought this is an essential pair of motifs, because for him it is essential to see Jesus Christ as God immanent, made flesh, in the world without this detracting from his true humanity. This is possible through the work of the Spirit, who maintains otherness within the intimate relationality of God and humanity in the Incarnation and so prevents any suggestion of Pantheism.<sup>31</sup> This transcendence of the Spirit has a broader significance for the God-world relationship as a whole. We require the balance of pneumatological transcendence if we are not to allow our conception of christological immanence to make the world "too much a function of God's presence to it, too little its own autonomous reality."<sup>32</sup>

(vi) With these underlying accounts of transcendence and immanence behind us, we can now move on to Gunton's doctrine of creation proper. At the start, we should note Gunton's explicit and implicit indebtedness to Irenaeus, in particular with regard to the shape and structure of his argumentation against a competitive God-world relationship. The heart of the doctrine of creation for Gunton is summed up by Irenaeus in the doctrine of creation *ex nihilo*. This means that God does not create using a pre-existent nothingness, but rather that God requires nothing but his Word and Spirit to create. This is the divine freedom; there is nothing prior to creation except God, and so there are no external constraints upon God.<sup>33</sup> Anything that did impose such constraints would "conflict with his freedom and omnipotence".<sup>34</sup> Irenaeus' point is that if there were any constraints, such as pre-existing matter, then this would be a rival for God, and would be "in point of fact *God*."<sup>35</sup> This is what we saw in our discussion of the God-world relationship. Anything that constrains God

<sup>30</sup> TTT, 119. C.f. John D. Zizioulas, *Being as Communion: Studies in Personhood and the Church* (Crestwood, NY: St. Vladimir's Seminary Press, 1997), 130

<sup>31</sup> CAC, 90–91

<sup>32</sup> Gunton, 'The Triune God and the Freedom of the Creature', 63

<sup>33</sup> TTC, 53

<sup>34</sup> Ibid. 53

<sup>35</sup> Gustaf Wingren, *Man and the Incarnation: A Study in the Biblical Theology of Irenaeus* (Edinburgh: Oliver and Boyd, 1959), 3. C.f. TCF, 17

(or carries out an activity which is normally attributed to God) is on the same ontological plane, and must be assumed to be divine. The doctrine of creation *ex nihilo* thus gives us the classic Christian ontology of creation wherein “there are no degrees of being but two realities, God and everything else that he has made, the created order.”<sup>36</sup> This is dualism, but it is non-competitive dualism; it is instead the case that there are two realities each with their own space.<sup>37</sup> They are not within one ontological framework or space.

(vii) God creates *ex nihilo*, in sovereign freedom. How does this correlate with the God-world relationship that is initiated by this creative act? Gunton again finds the answer to this in the thought of Irenaeus. According to Irenaeus, God the Father creates, relates to and works in and towards his creation by his two ‘hands’, the Son and Spirit. God needs no intermediaries for creation or action-in-relation, because he works thus through his Son and Spirit. Rather, *God himself* “by means of the energies of his Son and Spirit” crosses the space between God and the world, therefore “allowing and enabling the world to be itself.”<sup>38</sup> Moreover, because these two hands are God in person, there is no sense in which economic subordination decays into essential subordination. This is the power of the metaphor of the ‘two hands’; to use one’s hands is to do something oneself.<sup>39</sup> For Irenaeus, “[b]ecause God is lord of his creation, he does not need *intermediates* because mediation is achieved through his two hands.”<sup>40</sup> The two hands of God, God in person, mediate the space

---

<sup>36</sup> TTC, 54

<sup>37</sup> TCF, 11

<sup>38</sup> Ibid. 11

<sup>39</sup> Ibid. 181. C.f. Colin E. Gunton, ‘The Holy Spirit who with The Father and the Son Together is Worshipped and Glorified’, Lecture presented to the Heidelberger Ökumenisches Forum ‘The Trinity, the Church and The Christian Ethos’, 12.5.2000-13.5.2000 [Online document] <http://www.theologie.uni-hd.de/oek/institut/forum/vortrag1.htm>. The doctrine of the two hands of God “is itself the expression of the doctrine of an immediately present and active God.” (John Lawson, *The Biblical Theology of Saint Irenaeus* (London: Epworth Press, 1948), 122). C.f. Eric Osborn, *Irenaeus of Lyons* (New York: Cambridge University Press, 2001), 73

<sup>40</sup> TTC, 62-63. As Boris Bobrinskoy puts it, “the Word and the Spirit constitute the two intermediaries, the mediators of the revelation of the love and of communion with the Father.” (Boris Bobrinskoy, *The Mystery of the Trinity: Trinitarian Experience and Vision in the Biblical and Patristic Tradition* (tr. Anthony P. Gythiel) (Crestwood, NY: St. Vladimir’s Seminary Press, 1999), 204) In essence, Gunton is attempting to describe how it is that there is no pantheistic divinisation of the creature; there are no semi-divine created intermediaries between God and the world, whether these are selfish genes or evolution itself. C.f. Osborn, *Irenaeus of Lyons*, 65

or otherness between God and the world. We see this in the Incarnation, which is “an instance and paradigm of a form of *mediated* action that requires no *intermediaries*.”<sup>41</sup> Therefore if our understanding of the God-world relationship is not based on the Incarnation (mediated trinitarian action-in-relation), then “some logical or ontological - and hence necessitarian – link tends to be made between God and the world.”<sup>42</sup> This becomes not only a threat to divine freedom, but also to that of the created order, because it is “stable and reliable because it is upheld in being by Christ, through whom creation has its being.”<sup>43</sup>

(viii) God is free in the act of creation because he requires nothing except his two hands in order to do so. To say this is to claim that creation is an act of will. To be more precise it is an act of *personal* will and agency.<sup>44</sup> To describe this personal will of God, Gunton follows Athanasius and argues for a distinction between the divine will and the divine being. If we distinguish these, then we can argue that God is eternal but his willing of creation does not need to be. The natural order can therefore be contingent as the result of a free act of creation.<sup>45</sup> Moreover, because the world is the result of this divine act of willing so distinguished, its source lies in this contingent divine willing and not in the necessary divine being. Creation is therefore *a free, intentional and purposeful act of God*.<sup>46</sup>

---

<sup>41</sup> Gunton, ‘The End of Causality?’, 78

<sup>42</sup> TTC, 95. For instance, it has been argued that Newton’s Arian theology, in conjunction with his notion of uncreated space and time, lead him to view space and time in an almost christological and so mediatorial role. (Martin Tamny, ‘Newton, Creation, and Perception’, *Isis*, 70:1 (1979), 48-58; Simon Oliver, ‘Motion According to Aquinas and Newton’, *Modern Theology*, 17:2 (2001), 163-199 and Christopher B. Kaiser, *Creation and the History of Science* (London: Marshall Pickering; Grand Rapids, MA: Eerdmans, 1991), *passim*.)

<sup>43</sup> Ibid. 79. C.f. TAA, 151

<sup>44</sup> Gunton, ‘The End of Causality?’, 64-65

<sup>45</sup> TTC, 67

<sup>46</sup> Ibid. 9

*(B) The Nature of Created Reality*

The second major subsection of this chapter represents the created side of the God-world relationship. We have seen that the world exists in its own 'space'; its own gifted freedom in its relationship with God. But what does this signify about the nature of the world itself? What characteristics does this particular understanding of the God-world relationship and the doctrine of creation suggest for the natural world? That is the burden of our study now.

(i) What we have seen so far describes the act of creation from the Godward side. What we have said of the world itself has been restricted essentially to its intrinsic reality, its otherness from God. But this is not all we can say about the world. The first point to make about the world itself, and again Gunton derives this from Irenaeus, is that it is intrinsically *good*. This is to be found explicitly in the first chapter of Genesis but also has a christological basis, in that if the Son of God takes flesh, then nothing created is unreal, less real, or intrinsically evil.<sup>47</sup> From this we can see the development of the idea of the worth and reality of the created order, both as an intrinsic quality, and through the divine action in and towards the world. The significance of *intrinsic* worth is that this reflects the relative independence of the created order from God.

(ii) The created order is the result of ongoing divine action-in-relation. It therefore has an intrinsic goodness manifested both by God's positive evaluation of it and by the evidence of the divine action which sustains it. Gunton, following Irenaeus, links these ideas by arguing that this divine action-in-relation is also *purposive*. This is so because the creation is an act of love – it is a *project*.<sup>48</sup> In other words, "creation is

---

<sup>47</sup> Ibid. 52

<sup>48</sup> Gunton sees a suggestion of this in the description of the act of creation over six days in the first chapter of Genesis. (TCF, 7)

not only *ex nihilo* but in progress.”<sup>49</sup> Hence, for Irenaeus, the creation is *relatively* perfect;

The creation is, we might say, perfect in that it is destined for perfection.<sup>50</sup>

Jürgen Moltmann defines this as *creatio mutabilis*, whereby the world “is perfectible, not perfect, for it is open for the history of both disaster and salvation, for both destruction and consummation.”<sup>51</sup> Because creation is a project, Gunton argues that createdness has three tenses. In the past tense we have the doctrine of creation – free (*ex nihilo*) creation by God. In the present tense we have ontological dependence – “a continuing relationship of dependence upon a personal God.”<sup>52</sup> The third tense is the projected nature of creation – it is “destined for perfection, completedness.”<sup>53</sup> As with its intrinsic goodness, the eschatological perfection of the created order implies the value of the created order in its own right;

The fact that the act of creation is directed to the establishment of things whose rationale is their shaping as beings in time and space demonstrates the importance of the created world in and for itself.<sup>54</sup>

Furthermore, this also demonstrates the significance *of* time and space. In Christ, God is involved *in* time and space and so these must be good. The work of the Spirit, which is the perfecting of the created order *through* time, also shows that time is intrinsically good.<sup>55</sup> We have seen that the projective view of creation interprets the created order as purposive, and in so doing affirms its reality. We see now that this involves affirming those creatures, space and time, which are naturally integral to such divine action.

---

<sup>49</sup> Douglas Farrow, *Ascension and Ecclesia: On the Significance of the Doctrine of the Ascension for Ecclesiology and Christian Cosmology* (Edinburgh: T. & T. Clark, 1999), 50

<sup>50</sup> TTC, 55. C.f. TCF, 190; IAA, 105 and Paik, ‘An Analysis of Sallie McFague’s Metaphorical Theology’, 126-7

<sup>51</sup> Jürgen Moltmann, *The Future of Creation* (tr. Margaret Kidd) (London: SCM Press, 1979), 120

<sup>52</sup> CAC, 44

<sup>53</sup> Ibid. 45

<sup>54</sup> TTC, 84

<sup>55</sup> Ibid. 91

(iii) Connected with the issue of the importance of *creaturely* temporality and spatiality, is the question of *divine* temporality or spatiality. For him, the divine eternity must be neither identified with nor opposed to (creaturely) temporality. Gunton argues that Augustine is correct in refusing to attribute time to God, but goes too far in arguing that God is timeless.<sup>56</sup> It is of course correct to distinguish God from the created temporal order.<sup>57</sup> However, the timelessness of God leads to a view that all of God's acts are timeless (including creation), which also implies that *time and space cannot be taken seriously*.<sup>58</sup> If we attend instead to the divine involvement in time, we can see this is not the case. Here we see the divine patience, a giving of time and space to the creature in which it can be itself;

God's eternity means that, being secure in his own being, he is able to confer on the creation its own security and integrity as his creation, the world he loves in and through time.<sup>59</sup>

Gunton argues that much the same can be said of those authors who describe creation as an ontological dependence of the world upon God, at the expense of a firm doctrine of the establishment of creation in the past. Whilst the doctrine is concerned with such a dependence, "it is also concerned with the true temporality of that which is by virtue of God's creating act."<sup>60</sup>

---

<sup>56</sup> Ibid. 81

<sup>57</sup> TCF, 56

<sup>58</sup> TTC, 83. Perhaps we can add that the problem is that time and space are not taken seriously *as creatures*. Bavinck makes the important point that eternity and temporality are not to be contrasted, as we find in an atemporal view of divine eternity. Rather "eternity and time *differ essentially*." (Bavinck, *In the Beginning*, 39) If time and eternity are contrasted, then they are in a sense competitive, and so on one ontological plane.

<sup>59</sup> TCF, 56. Douglas Farrow argues that the Ascension also demonstrates that creaturely temporality and divine eternity cannot be understood as opposed, because here it is seen that "the eternal is something to which the temporal may aspire without abandoning its temporality." (Farrow, *Ascension and Ecclesia*, 50)

<sup>60</sup> TTC, 91. For instance, the noted science-theology contributor Robert J. Russell argues that a loss of  $t=0$  (i.e. the Big Bang) would equal a loss of creation *ex nihilo*, and consequently affirms a doctrine of ontological dependence. (Robert J. Russell, 'Is Nature Creation? Philosophical and Theological Implications of Physics and Cosmology from a Trinitarian Perspective', *Studies in Science and Theology*, 3 (1995) 94-124, (citation, 105-108), and Robert J. Russell, 'Finite Creation without a Beginning: The Doctrine of Creation in Relation to Big Bang and Quantum Cosmologies', in *QCLN*, 291-325, *passim*). This not only threatens the temporality of the natural order, but also conflates theology and cosmology.



This is a point recognised by Paul Helm, who argues for a timeless view of God. However, this view causes some difficulties for both the doctrine of creation and the doctrine of Providence. First, for Helm, creation is the bringing into being of *the whole temporal order*, “not a creation of the universe by One who is already subject to time.”<sup>61</sup> The concept of a temporal first moment of creation is unnecessary, “and so the universe need not have begun (temporally) to exist, for from the divine standpoint the universe is eternal, even though it exists contingently.”<sup>62</sup> Even if there is a first moment of creation, we can then still argue that *God did not exist before the creation*, because “if there was a first moment of creation, then there was no time prior to the first moment during which God might exist.”<sup>63</sup> The God-world relationship is therefore contingent, in that God need not have had it, but it is nonetheless eternal.<sup>64</sup> God exists before the created order only in a logical or hierarchical sense.<sup>65</sup> Second, although Helm wants to affirm the specificity of divine acts, he in fact finds it difficult to explain or describe how this can be the case. Such discreet acts cannot be serial, as this would imply temporality.<sup>66</sup> However, although we can say that God acts, “there is no moment at which he acts. If he is timelessly eternal how can there be such a moment?”<sup>67</sup> Therefore, the universe is only *apparently* a continuous (serial) creation. From God’s point of view “what is created is one temporally extended or ordered view.”<sup>68</sup> Rather worryingly, as Helm admits, this makes it difficult to distinguish the act of creation from preservation, such that the God-world relationship is reduced to one of dependence.<sup>69</sup> Again Helm implies this difficulty when he states that the distinct acts (which normally would comprise Special Providence) are to be seen as nothing other than the pattern of Providence *at*

---

<sup>61</sup> Paul Helm, ‘Divine Timeless Eternity’, in Gregory E. Ganssle (ed.) *God and Time: Four Views* (Downers Grove, IL: Inter-Varsity Press, 2001), 28-60, (citation, 33). Although Helm’s position is ultimately problematic, he rightly acknowledges that creation is not to be equated with  $t=0$  or the Big Bang. (Ibid. 51)

<sup>62</sup> Ibid. 49

<sup>63</sup> Ibid. 49

<sup>64</sup> Ibid. 49-50

<sup>65</sup> Ibid. 52

<sup>66</sup> Paul Helm, ‘Eternal Creation’, *Tyndale Bulletin*, 45:2 (1994), 321-338, (citation, 331)

<sup>67</sup> Ibid. 332

<sup>68</sup> Paul Helm, ‘Eternal Creation: The Doctrine of the Two Standpoints’, in Colin E. Gunton (ed.) *The Doctrine of Creation: Essays in Dogmatics, History and Philosophy* (Edinburgh: T. & T. Clark, 1997), 29-46, (citation, 35)

<sup>69</sup> Paul Helm, *The Providence of God*, (Leicester: Inter-Varsity Press, 1993), 81

*that moment.*<sup>70</sup> Divine activity is only *apparently* serial in nature. Although Helm rightly emphasises the contingency of the natural order, there is still a potential for emanationism and Pantheism in his argument. The God-world relationship is eternal and has no ‘contours’ in that there are no discreet acts. This seems to remove the action from action-in-relation, and threatens a Pantheism or emanationism in which the world is nothing other than the result of a timeless overflowing of divine creativity and/or being.

(iv) Creaturely temporality and spatiality must be safeguarded by distinguishing them from, but not opposing them to the being of God. The same is true of those entities or processes that occur through space and time. An essential aspect of this for Gunton is ensuring that there is no conflation of natural processes (such as evolution or entropy) with the project of creation. This would be to confuse cosmic eschatology with the divine perfecting of the world.<sup>71</sup> For Gunton, it is essential that a doctrine of creation says that “it has a destiny other than a continuing, if finite, progression to entropy and increasing complexity: the destiny of being enabled, through Jesus’ offering of a perfect humanity to the Father, to praise its creator and return to him perfected.”<sup>72</sup> As Douglas Farrow puts it;

Creation may indeed be a process, and the kingdom of God on the way, so to speak; but it is not on the way along *our* way.<sup>73</sup>

To confuse cosmic and divine eschatology is to deny the third tense of the doctrine of creation, either by assuming that the universe is purposeless, or by arguing that if it has a purposeful goal, it can reach this without divine action-in-relation. For Irenaeus, and indeed for Gunton, that which perfects creation and brings humanity and God closer together is due to the power of God and not an innate human or cosmic potential.<sup>74</sup> However, to say that this eschatological perfection has a divine agent does not detract from the fact that it occurs within the natural order. In other

<sup>70</sup> Ibid. 95

<sup>71</sup> PTT, 158

<sup>72</sup> Ibid. 158. C.f. TTC, 188

<sup>73</sup> Farrow, *Ascension and Ecclesia*, 78

<sup>74</sup> Wingren, *Man and the Incarnation*, 8 and 33

words, cosmic eschatology and the dynamic of the Spirit cannot neither be identified nor contrasted, because “the latter is oriented to the one crucified in the midst of that very dynamic of energies of which we are speaking.”<sup>75</sup>

(v) Gunton’s refusal to either identify or oppose God and the world is reflected in his understanding of the actual characteristics of the world as created. Indeed Gunton on numerous occasions develops his account of the manner in which the created order ‘reflects’ certain aspects of the divine being, relationality and activity.<sup>76</sup> These features are what Gunton refers to as “open transcendentals”, and two of them, perichoresis and substantiality, are of interest in this context.<sup>77</sup> These two concepts enable Gunton to link an ontological understanding of relationality (in the Godhead, between God and the world and in this instance within the created order) with an assertion of the concrete or particular nature of creatures. Both of these will be seen to be essential aspects of Gunton’s safeguarding of the reality of the created order.

Gunton can say that the ontological character of the universe is “a perichoresis of interrelated dynamic systems”<sup>78</sup> whereby “the whole universe becomes conceivable as a dynamic structure of fields of force in mutually constitutive relations.”<sup>79</sup> Gunton links this dynamism with an insistence on temporal irreversibility. Of course, the cosmological eschatology derived from this must not be confused with theological eschatology.<sup>80</sup> The distinction can be maintained by focussing on the action of the Spirit as “the divine energy releasing the energies of the world, enabling the world to

<sup>75</sup> PTT, 158. For more resources on distinguishing cosmological and theological eschatology see John Jefferson Davis, ‘Cosmic Endgame: Theological Reflections on Recent Scientific Speculations on the Ultimate Fate of the Universe’, *S&CB*, 11:1 (1999), 15-27

<sup>76</sup> These are discussed predominantly in OTM and also in PTT. There are at least three for Gunton; perichoresis, substantiality and relationality.

<sup>77</sup> As Christoph Schwöbel argues “[G]unton asks in what way the doctrine of the Trinity generates transcendentals which allow us to grasp the structure of created being by attempting to make its relations to the being of the triune creator transparent.” (Christoph Schwöbel, ‘Radical Monotheism and the Trinity’, *NZSTh*, 43:1 (2001), 54–74, (citation, 72). It is this practical use of the transcendentals that appears to have been grasped in some recent material from the science-theology interface; c.f. P. Barrett, ‘Beauty in Physics and Theology’, *JTSA*, 94 (1996), 65–78, and William R. Stoeger, ‘God and Time: The Action and Life of the Triune God in the World’, *Theology Today*, 55:3 (1998), 365–388.

<sup>78</sup> PTT, 156

<sup>79</sup> Ibid. 157

<sup>80</sup> Ibid. 157

realise its dynamic interrelatedness.”<sup>81</sup> The universe is inherently dynamic, but this dynamism cannot by its own accord direct itself towards eschatological perfection. The world is a perichoretic order, “*summoned* into being and *directed* towards its perfection by the *free* creativity of Father, Son and Holy Spirit.”<sup>82</sup> However, Gunton is insistent that we do not lose sight of the intrinsic reality, the “particular being”, of the natural order which this prevenient divine order secures.<sup>83</sup> This particularity is studied through another transcendental, substantiality.<sup>84</sup> This is Gunton’s way of describing what it is that is actually perfected through time by the action of the Spirit, and the answer is “the material particular”. The created order is a universe of particular entities.<sup>85</sup> Reality is to be understood as that which is held in being by God and other things in particular space-time configurations in which its being is constituted – i.e. createdness.<sup>86</sup> As such, these specific, individual and yet relationally constituted creatures *exist*, are real.

### (C) Critique

In this chapter we have addressed Gunton’s theology from two perspectives; the doctrine of creation and the nature of the creature. Most of the criticisms of Gunton’s theology have been addressed towards the second perspective and, in particular, his concept of the transcendentals. Accordingly, this will be the major focus of this subsection. However, there are other potential difficulties which we must at least flag up for further study, some of which we shall be attempting in this thesis.

(i) The heart of Gunton’s doctrine of creation *per se* is relatively uncontroversial, insofar as it treats of established subjects such as creation *ex nihilo* and the doctrine of the Immanent Trinity. The latter is of course still a matter of some heated

---

<sup>81</sup> Ibid. 158

<sup>82</sup> OTM, 166. My italics

<sup>83</sup> Ibid. 166-167

<sup>84</sup> Ibid. 179

<sup>85</sup> Ibid. 206

<sup>86</sup> Ibid. 200

controversy, but the principle behind, basically that of protecting the contingency of the natural order by affirming the freedom of the divine creative act, is not. There is one aspect of this part of Gunton's theology that must be addressed here, and that is his discussion of the difference in transcendence and immanence of the two hands of the Father. Gunton's insistence on the transcendence of the Spirit is unusual, but by no means unique, and articulates something of a reaction to the more common emphasis on the immanence of the Spirit.<sup>87</sup> The strength of this position is that it informs our understanding of what transcendence and immanence actually entails, but there is room for confusion, especially with regard to Gunton's fruitful reinterpretation of transcendence and immanence as otherness and relation. To be specific the difficulty lies in Gunton's paralleling of *christological immanence* with *identity*. If transcendence represents the divine otherness, then immanence understood as identity (as it is here) would be in *contrast* to divine transcendence. This goes against the grain of his theology of the God-world relationship, wherein immanence is possible *because* of the divine transcendence, and so represents a major difficulty. We can hypothesise that here Gunton has inadvertently reverted to answering the question of transcendence and immanence in the same but opposite manner to those with whom he is in conversation. In other words, if there is a tendency to identify immanence with the Spirit, then Gunton has simply turned this argument on its head rather than reinterpreting the discussion in terms of otherness and relation. Without attempting to resolve this issue, it is worth clarifying Gunton's intent; for him, the action-in-relation of the Spirit represents an *emphasis* on the divine *otherness-in-relation* with the world, whereas the Incarnation, the identification (without Pantheism) of the Son with an aspect of the created order, represents equally an *emphasis* on the *otherness-in-relation* between God and the natural order.

---

<sup>87</sup> For an example of the latter, the reader is referred to the powerful and evocative treatment of the *Shekinah* in the theology of Jürgen Moltmann, especially as is presented in *God in Creation: An Ecological Doctrine of Creation* (tr. Margaret Kohl) (London: SCM, 1985)

(ii) Gunton's development of the concept of transcendentals has generated a good deal of interest (indeed, it has been the impetus for the all too rare serious treatments of Gunton's theology) but it has also generated some criticism.<sup>88</sup> Stephen N. Williams links Gunton's argument on this issue with his occasionally problematic methodology. He can go so far as to say that Gunton is creating a *philosophia christiana*, as "an attempt on theological premises to give a philosophical description of the created order".<sup>89</sup> Williams argues that in Gunton's work there is a theologically unjustifiable intellectualism<sup>90</sup>, which is undesirable because;

What matters in the realms of humanity and sociality, to which Gunton applies his thought, is getting people to care for each particular other. People do not do so by getting straight on the ontology of relations.<sup>91</sup>

We are willing to grant that Gunton's methodology can occasionally appear to be abstract and artificial in its construction, especially in OTM to which Williams is referring in particular, and also in his doctrine of Providence. However, Williams' criticism is a little unfair in that Gunton's argument is geared towards showing, as we are arguing, that such apparently abstract concepts as createdness have genuinely concrete ramifications. This is because, as Douglas Knight has pointed out, to attempt to conceptualise the nature of God is to be able to begin to understand the world;

God both distinguishes himself from his work, and identifies his work with himself. Making this distinction and identification is his work, and our knowledge of it is his own work too.<sup>92</sup>

---

<sup>88</sup> This is not to imply that the excellent study by Bradley Green to which we have already made mention is not a serious endeavour; nonetheless, it is not designed as a treatment of Gunton's wider theology.

<sup>89</sup> Stephen N. Williams, *Revelation and Reconciliation: Windows on Modernity* (Cambridge: Cambridge University Press, 1995), 166. C.f. David S. Cunningham, *These Three are One: The Practice of Trinitarian Theology* (Oxford: Blackwell, 1998), 39-41.

<sup>90</sup> Williams, *Revelation and Reconciliation*, 172.

<sup>91</sup> Ibid. 171-2.

<sup>92</sup> Douglas Knight, 'From Metaphor to Mediation: Colin Gunton and the Concept of Mediation', *NZSTh*, 43:1 (2001), 118-136, (citation, 121).



Indeed, it is worth pointing out that in his early work especially, Gunton has made precisely the same criticism about Process Thought as Williams makes about him.<sup>93</sup> He goes so far as to describe Process Theology as a form of Gnosticism, insofar as true reality is that which can only be grasped by the intellectually able, rather than by those to whom truth can be mediated by divine action.<sup>94</sup>

(iii) Fermer also makes a similar criticism to Williams in his treatment of Gunton's transcendentals. He feels that there is a danger in Gunton's thought (insofar as it mirrors that of Zizioulas in this respect) of reducing God to the subject of metaphysics and in so doing threatening "a collapse of the distinction between God and the world".<sup>95</sup> Fermer concedes that this threat is somewhat attenuated in Gunton's thought in that he does not treat the Trinity as a transcendental (the analogy is based on God as Creator, not God's being) and his affirmation of apophaticism. Fermer advocates that we distinguish the verbal noun 'being' from the past participle; and so "*the* being of God is constituted by communion, but the being of created entities is shaped, in some way, by God as creator or source of all being."<sup>96</sup>

Fermer's argument is very interesting, but again he seems curiously able to disregard those aspects of Gunton's theology in which he affirms the distinction between God and the world. In our present chapter, we have seen that the theological significance of the transcendentals lies in their use as a way of holding together the similarity-in-distinction between divine and creaturely realities. If we were to claim identity between these realities, then we would of course be carrying out a pantheistic programme. However, to deny any similarity, is to suggest that these aspects of the world are unreal, and so not genuine creaturely aspects of the natural order. To do this has a further consequence. Downplaying the reality of time and space does not just endanger their own reality as creatures. The reality of that which occurs in space-time is also threatened, as appears to be the case in the thought of Robert J. Russell,

---

<sup>93</sup> OTM, 199, n29

<sup>94</sup> Colin E. Gunton, 'The Knowledge of God According to Two Process Theologians: A Twentieth-Century Gnosticism', *Religious Studies*, 11 (1975), 87-96, (citation, 95)

<sup>95</sup> Fermer, 'The Limits of Trinitarian Theology', 173

<sup>96</sup> *Ibid.* 174

on the question of the Special Theory of Relativity. Here there is a potentially difficult ontologising of spatial and temporal relationships between events in space-time, rather than locating ontology in relational particularities in space-time.<sup>97</sup> We would point to his argument for the non-reality of the present moment for further evidence.<sup>98</sup> Russell must safeguard the ontological content of particularities in space-time, and the creaturely status of space-time, or his whole project is threatened.

### *Conclusion*

In this chapter we have addressed the very heart of our grammar of createdness – the doctrine of creation itself. For the reader of Gunton's theology, this is not a cut and dried affair; it requires an effort of reconstruction and further reading from most of his major works and a number of subsidiary essays and articles. Hopefully, it is clear that this is not due to an unsystematic approach to theology on Gunton's part, but rather because the doctrine finds echoes and anticipations throughout his work. It is especially to be hoped that the dependence of this doctrine on the concept of the divine prevenience and triune freedom has been made clear. This demonstrates that the createdness of the natural order is preserved in Christian theology not by a diminution of the divine being or divine action-in-relation with respect to the natural order, but actually through an affirmation of God's triune lordship.

Although Gunton never attempts a deliberately abstract rendering of the God-world relationship and the nature of the created order, his work has certainly been interpreted in this manner. This is because the transcendentals produce a very real tension in Gunton's thought. They represent something of a theology of nature (i.e. argument to design) rather than a natural theology (an argument from design). As such, their function is to explicate the nature of the world in the light of the divine self-revelation of God in Christ. On the other hand, and this is a point which is not really brought out in extant criticisms, they are an unresolved difficulty for a doctrine

---

<sup>97</sup> Robert J. Russell, 'Time in Eternity: Special Relativity and Eschatology', *dialog*, 39:1 (2000), 46-55 (citation, 52-53)

<sup>98</sup> Russell, 'Is Nature Creation?', 95-100

of creation. Are they to be understood as a circumventing of the mediated nature of the God-world relationship, and the doctrine of the Immanent Trinity? Perhaps more seriously still, if these features of the natural order reflect the nature of the Creator God, then *must* the world have these properties? Is God free to create a world without these characteristics? If not, then they are not contingent features of the natural order. The answer is unclear, especially as the transcendentals are a theological interpretation of the properties of the world which are open to empirical investigation. Nonetheless, once again we must make clear that because Gunton wishes to deny the semi-divine status of any aspect of the natural order, then it seems apparent that *for him* the transcendentals must be a contingent part of the created order.

### **Chapter 3: Divine Action-in-Relation (I) – The Work of the Son and the Spirit**

#### ***Introduction***

In the last two chapters of our discussion of Gunton's theology, we have a great deal of ground to cover. We have to discuss his treatment of Christology, Soteriology Pneumatology, the community of the redeemed (the Church) and Providence. The first four of these doctrines might seem surprising emphases for a theology that is to be used in dialogue with science, but the importance of all of these lies in their continuity with Gunton's concern for createdness, especially as this represents the identity of the natural order. As in the previous chapters, the identity of the natural order as the created order is something that must be *maintained*. The natural order has an intrinsic reality, but this is still dependent upon the divine prevenience. In this chapter we find more details on how divine action-in-relation maintains the identity of the natural order as an eschatological project being directed towards perfection, and the manner in which redemption and sanctification represent the safeguards of this eschatological destiny.

#### ***(A) God's Work in Jesus Christ: Christology and Soteriology***

The Christian faith is based on the belief that God encounters and defeats sin through the life, death, resurrection and ascension of Jesus Christ. Such a belief raises a number of questions that are relevant to our study. What is the relationship between sin and createdness? How is sin defeated through Jesus Christ? What is redemption and how can it influence the whole of the created order? For Gunton, this discussion is governed by a central motif of the rigorous connection between redemption and creation.<sup>1</sup> In particular, we can trace the effect of the motif of the project of creation throughout his christological and soteriological discussions.

---

<sup>1</sup> TAA, 150

(i) As we have seen, the created order must be perceived as good, as indeed perfect, insofar as it is a project directed towards a future perfection and fulfilment. The converse of these motifs is that anything that threatens the project of creation is not good and indeed distorts createdness. For Gunton, this is exactly the nature and consequence of human sin.<sup>2</sup> The consequence of sin is *a disjoining, a disruption of the project of creation*. For Gunton, then, the redemption wrought through Jesus Christ must be seen as *the restoration of this project*;

What is achieved in Jesus' ministry is accordingly the work of the one through whom the creation was made returning to his realm in human actuality, in such a way that by means of his action and passion, and what God achieves through them, the project of creation is redirected towards its proper end – the at-one-ment of all things with God.<sup>3</sup>

It is important to note that in Gunton's thought sin does not remove all directedness from the project of creation. Instead he uses a motif wherein sin introduces a false eschatology, almost a dead end into the natural order. Here, for example, death is transformed from part of the natural and good limitation of created life into an alien destiny, "the death which is not fulfilment but subjection to futility."<sup>4</sup> The redemptive activity of God in Christ supervenes upon this alien, 'negative', eschatology and restores the direction of creation.<sup>5</sup> We must take the nature of sin and its consequences very seriously. Without the restoration that the Atonement brings, "we are shaped and destined for death."<sup>6</sup> The life, death and resurrection of Christ shows us that we cannot be perfected without transformation.<sup>7</sup> Hence Gunton can say that "redemption is not merely a removal of disorder but a redirection and a

<sup>2</sup> TCF, 60. Sin is the disruption of the human relation to God, which at the human level takes on the form of idolatry. (AAB, 73)

<sup>3</sup> Colin E. Gunton, 'Atonement and the Project of Creation: An Interpretation of Colossians 1:15-23', *dialog*, 35:1 (1996), 35-41, (citation, 37-38). C.f. TCF, 67 and CAC, 91

<sup>4</sup> FSH, 111. As such, we must distinguish between mortality and death. (TCF, 139). "Creation in the beginning is a beginning. It is the start of history, and that history is a movement from a garden to a city. But the fall has occurred, and that means, for the biblical perspective, that there is an antithesis within history, two historical movements and two cities." (Bradley J. Walsh, 'Theology of Hope and the Doctrine of Creation: An Appraisal of Jürgen Moltmann', *Evangelical Quarterly*, 59 (1987), 53-76, (citation, 67)

<sup>5</sup> Colin E. Gunton, 'Dogmatic Theses on Eschatology', in David Fergusson & Marcel Sarot (eds.) *The Future as God's Gift: Explorations in Christian Theology* (Edinburgh: T. & T. Clark, 2000), 139-143, (citation, 142). C.f. Farrow, *Ascension and Ecclesia*, 50

<sup>6</sup> TCF, 153

<sup>7</sup> Ibid. 153

liberation: it is a resurrection.”<sup>8</sup> Therefore, in and through Jesus Christ, the identity and createdness of the natural order are restored, in that redemptive divine action enables the created order *to be what it was intended to be*. Ultimately, we see that creation and redemption cannot be divorced because God’s action that “takes the form of *both* creating what is *and* redeeming what has failed to become what it is called to be.”<sup>9</sup>

(ii) Gunton is careful to position these concepts of sin and redemption within his wider scheme of trinitarian action-in-relation. We must avoid seeing the atoning life of Christ as an *intervention* into the natural order, otherwise Deism threatens.<sup>10</sup> Instead we must realise that “it is the *mediator of creation* who comes to ensure that the original purposes of God do not founder in futility.”<sup>11</sup> In the Incarnation, the ongoing relationship between the Word of God and the world is fulfilled uniquely in the form of *personal presence*.<sup>12</sup> Therefore, in line with his insistence on a non-contrastive understanding of the God-world relationship, Gunton refuses to see kenosis as involving a limiting or diminution of the divine being. It is in fact a *concentration* of God’s reality.<sup>13</sup> In sum, then, the life of Jesus Christ is not an irruption “but is continuous with the love that operates throughout the creation.”<sup>14</sup>

<sup>8</sup> TAA, 149. C.f. Gunton, ‘Atonement and the Project of Creation’, 36 and ‘The God of Jesus Christ’, 330

<sup>9</sup> Colin E. Gunton, ‘Christ, the Wisdom of God: A Study in Divine and Human Action’, in Stephen C. Barton (ed.) *Where Shall Wisdom Be Found? Wisdom in the Bible, the Church and the Contemporary World* (Edinburgh: T. & T. Clark, 1999), 249-261, (citation, 256). C.f. TCF, 79

<sup>10</sup> TAA, 145. This fails to account for the continuing dependence of the world upon God. As Gorringe admirably puts it, intervention speaks “as if there were a world without God into which God sometimes stepped.” (T. J. Gorringe, *God’s Theatre: A Theology of Providence* (London: SCM Press, 1991), 32) C.f. Benjamin W. Farley, *The Providence of God* (Grand Rapids, MI: Baker Book House, 1988), 214

<sup>11</sup> TAA, 146. My italics. C.f. Gunton, ‘Atonement and the Project of Creation’, 39

<sup>12</sup> TCF, 98. In an early work, Gunton relates this to “the self-differentiation of the divine omnispatiality.” (YAT, 118)

<sup>13</sup> Ibid. 94. C.f. TCF, 114 and CAC, 83-84

<sup>14</sup> Colin E. Gunton, ‘Time, Eternity and the Doctrine of the Incarnation’, *dialog*, 21:4 (1982), 263-268, (citation, 266). C.f. TAA, 146



(iii) The connections between creation and redemption in Gunton's thought are not solely to be found in his treatment of the redemptive restoration of the direction of creation. For Gunton, the Incarnation is itself integral to the project. The creation is *in* but also *for* Christ.<sup>15</sup> This end of creation lies in the prevenient divine purpose, and is prior to the Fall and can encompass it. Rather than being seen as a form of repair for the broken creation, the Incarnation is itself integral to its perfection.<sup>16</sup> Gunton describes this with a motif he derives from Scotus and Irving and argues that there would have been an Incarnation, even with the absence of sin in the world, but *it would not have this shape*.<sup>17</sup> If creation leads to redemption in this way, "then the latter must be its maturity and perfection."<sup>18</sup> This does not imply a 'felix culpa' doctrine except insofar as the Incarnation is perceived as a fulfilment of the creation and not a mere repair job. Indeed, the Incarnation is *the crown of creation*.<sup>19</sup>

(iv) However, we must not lose sight of the fact that although the Incarnation has this connectivity with the project of creation, it is still *a divine initiative*. In other words, we must again ensure that cosmic eschatology is not conflated with eschatological history. In this instance, we are referring to any suggestion that the Incarnation arises *naturally* out of evolutionary or cosmological history. For Gunton, any such conception is negated by the doctrine of *anhypostasia*, which teaches that the hypostasis and person of Christ "does not have its basis in the way that ours do in the processes of the finite world alone."<sup>20</sup> As such, we can avoid any evolutionary

---

<sup>15</sup> TCF, 65

<sup>16</sup> Ibid. 64

<sup>17</sup> TAA, 151. C.f. CAC, 96 and TCF, 67. For more on the concept of the Incarnation as integral to the perfecting of creation, and so occurring without the presence of sin in the world, see Jürgen Moltmann, *The Trinity and the Kingdom of God: The Doctrine of God* (tr. Margaret Kohl) (London: SCM Press, 1981), 115-116

<sup>18</sup> Leo Scheffczyk, *Creation and Providence* (tr. Richard Strachan) (London: Burns & Oates, 1970), 71

<sup>19</sup> TCF, 67. In short, Gunton argues that the "creation is naturally ordered to God." (Colin E. Gunton, 'The Trinity, Natural Theology, and a Theology of Nature', in Kevin J. Vanhoozer (ed.) *The Trinity in a Pluralistic Age: Theological Essays on Culture and Religion* (Grand Rapids, MI/Cambridge: Eerdmans, 1997), 88-103, (citation, 98)). C.f. Robert W. Jenson, *Systematic Theology*, ii: *The Works of God* (New York: Oxford University Press, 1999), 17

<sup>20</sup> CAC, 47. Paul D. Molnar refers to evolutionary Christology as "a clear instance of the historical process rather than Jesus himself defining the truth." (Paul D. Molnar, *Karl Barth and the Theology of the Lord's Supper: A Systematic Investigation* (New York: Peter Lang, 1996), 75)

reductionism that would base the significance of Christ in cosmic history.<sup>21</sup> Worse, this would represent a *deification* of the evolutionary process “so that it rather than the free and transcendent God takes the initiative in what happens.”<sup>22</sup> There is here an explicit connection between createdness and the natural sciences; if evolution is perceived as salvific, it is divinised and so loses “any other intrinsic rationality. We are then back to a prescientific view of the divinity of the cosmos.”<sup>23</sup>

Another difficulty with evolutionary christologies lies in the absence of particularity that they generate. For Gunton, we must never lose sight of the particularity of the atoning life of Christ, despite the full, universal Atonement that he advocates as part of the eschatological goal of creation. In contrast, when evolution and eschatological destiny are equated, Gunton perceives that the Incarnation becomes effectively a world principle. Such an understanding leads to a Cosmic Christ, but not *this particular* Christ and *this* atoning life and death.<sup>24</sup> Note that the emphasis is on human particularity *and* the particularity of divine action;

The depth of the need demonstrates that the adoption of a good man, independently thrown up by evolution or history, was not enough; we are not saved by the cosmos or by history, but by their sovereign lord and disposer, God in person.<sup>25</sup>

An evolutionary Christology assumes that the Incarnation occurs or arises at some midpoint within cosmic history. But this is to disregard Irenaeus’ insight that cosmic history represents a distorted view of the true eschatological nature of the world, because “through the fall our evolution has actually become our devolution.”<sup>26</sup> As

---

<sup>21</sup> CAC, 47

<sup>22</sup> Ibid. 48

<sup>23</sup> YAT, 126-127. Gunton also makes clear the connection between Christology and divine initiative even in this early work. (Ibid. 129). We must also avoid misinterpreting this conception of redemption by equating the renewed capacity for attaining perfection with an evolutionary goal, or an evolutionary gain. For this, see for example Lyman Abbott, *The Theology of an Evolutionist* (London: James Clark, 1897), 88

<sup>24</sup> Gunton, ‘Atonement and the Project of Creation’, 36

<sup>25</sup> TCF, 96. “The Christ whom Christians worship as God is not a product of creative activity, any more than He is the product of emergent evolution or of an Idea or Spirit immanent in a developing universe.” (Lionel S. Thornton, *The Incarnate Lord: An Essay Concerning the Doctrine of the Incarnation in its Relation to Organic Conceptions* (London: Longman, Green and Co., 1928), 227)

<sup>26</sup> Farrow, *Ascension and Ecclesia*, 77

such, according to Irenaeus, the Son of God comes “to offer his summing up just where it is necessary for history to begin all over again.”<sup>27</sup> Evolutionary christologies make the mistake of assuming continuity between cosmic and divine eschatologies and histories. The Ascension demonstrates that on the contrary, there is a fundamental discontinuity, which is overcome in the Incarnation and in the present through the Eucharist.<sup>28</sup>

(v) In his understanding of the Incarnation and Atonement, Gunton also emphasises the *entirety* of Christ’s earthly ministry as an Atonement for sin. This is due to Gunton’s emphasis on the Incarnation as a microcosm of human life.<sup>29</sup> Unsurprisingly, he explicitly claims that his doctrine of the Incarnation, like that of Irenaeus, is one of recapitulation;

“In Jesus, God recapitulates the human story, achieving the redemption of the lost creation by doing in triumph what Adam failed to do in defeat.”<sup>30</sup>

The Atonement *reinaugurates* the project of creation, because the recapitulation of human life by Jesus is “the means of perfection in the senses of both restoration and of completion.”<sup>31</sup> For Gunton, the divine action-in-relation in Christ is appropriate to our createdness and our fallenness.<sup>32</sup> In particular, it is appropriate to the spatiotemporal nature of the created order.<sup>33</sup> Redemption must have a spatiotemporal pattern.<sup>34</sup> Again, explicitly following Irenaeus, Gunton argues that redemption “takes account both of the intended destiny of the creature and the way by which it fell from

<sup>27</sup> Ibid. 77

<sup>28</sup> Ibid. 78. C.f. FSH, 156. Gunton also acknowledges this discontinuity through affirming the prevenient divine action in the Virgin Birth. (TCF, 100). It should be noted that this affirmation of particularity and divine initiative does not preclude an emphasis on the true and so evolutionary humanity of Jesus Christ. Indeed, the eternal Son of God can be said to become, like us, “an ape-in-the-image-of-God”. (Graeme Finlay, ‘*Homo Divinus*: The Ape that Bears God’s Image’, *S&CB*, 15:1 (2003), 17-40, (citation, 38)

<sup>29</sup> Gunton, ‘Atonement and the Project of Creation’, 39

<sup>30</sup> FSH, 29

<sup>31</sup> TTC, 202

<sup>32</sup> Gunton, ‘Christ, the Wisdom of God’, 256. C.f. Gunton, *The Holy Spirit Who with The Father and the Son Together is Worshipped and Glorified*

<sup>33</sup> Gunton, ‘Atonement and the Project of Creation’, 36

<sup>34</sup> CAC, 91

its destiny.”<sup>35</sup> Sin and evil occur within temporal and spatial dimensions, and so must salvation.<sup>36</sup>

(vi) So far we have seen that Gunton is insistent on the particularity of the Incarnation. Nonetheless, he is also insistent on the universal effect and extent of the Atonement.<sup>37</sup> Universality and particularity are combined in Gunton’s thought because this universal restoration does not occur *en masse*, but in *the restoration of humanity* through Christ. This rests upon a unique feature of the human race; we are created in the image of God, which for Gunton is to be identified with personhood.<sup>38</sup> The connection is that in Gunton’s thought, ‘person’ means “to be constituted in particularity and freedom – to be given space to be – by others in community.”<sup>39</sup> Therefore, a network of human and cosmic relatedness constitutes the person or human particularity.<sup>40</sup> The essential element of Gunton’s thought on personhood is this marrying of the person as particular - as *hypostatic* - and as relational. It is imperative that both of these are grasped together.<sup>41</sup> Understood in theological terms, personhood involves a double orientation.<sup>42</sup> On the one hand to be a person, as a creature, involves being in a right (and hence redeemed) relationship with God.<sup>43</sup> Personhood also involves a horizontal aspect, a relationality primarily with humans and then with the rest of the created order.<sup>44</sup> Together, this means that the image of God is eschatological and ontological.<sup>45</sup>

---

<sup>35</sup> TCF, 64. C.f. Ibid. 87

<sup>36</sup> Ibid. 63

<sup>37</sup> TAA, 169. C.f. Colin E. Gunton, ‘The Sacrifice and the Sacrifices: From Metaphor to Transcendental?’, in Ronald J. Feenstra and Cornelius Plantinga Jr., (eds.) *Trinity, Incarnation, and Atonement* (Notre Dame: University of Notre Dame Press, 1989), 210-229, 210-229, (citation, 221-222); TCF, 97; TAA, 169 and Colin E. Gunton, ‘Universal and Particular in Atonement Theology’, *Religious Studies*, 28 (1992), 453-466, (citation, 453 and 458)

<sup>38</sup> This means that the non-human creation is non-personal. C.f. TTC, 208 and TCF, 61

<sup>39</sup> PTT, 117

<sup>40</sup> OTM, 202

<sup>41</sup> Colin E. Gunton, ‘Persons’, in Paul Barry Clarke and Andrew Linzey (eds.) *Dictionary of Ethics, Theology and Society* (London: Routledge, 1996), 638-641, (citation, 638)

<sup>42</sup> PTT, 116

<sup>43</sup> Ibid. 116-117

<sup>44</sup> TTC, 208

<sup>45</sup> Ibid. 201. C.f. PTT, 118; Gunton, ‘Christ, the Wisdom of God’, 256; George F. Wright, ‘The Divine Method of Producing Living Species’, *Bibliotheca Sacra*, 33:132 (1876), 448-493, (citation, 490) and Barrie Britton, ‘Evolution by Blind Chance’, *SJOT*, 39:3 (1986), 341-60, (citation, 354))

(vii) It is a Christian conviction that through human sin the image of God is at the very least distorted. This distortion affects the whole of the created order not just because of the continuity between humanity and all other creatures but also because the non-human (and thus non-personal) creation “is unable to realise its destiny, the praise of its creator, apart from persons.”<sup>46</sup> The image of God therefore involves a specific role in the perfecting of the created order;

To be in the image of God is therefore to be called to represent God to the creation and the creation to God, so enabling it to reach its perfection.<sup>47</sup>

Because the image of God is relational (and in this way ontological) it does not involve any radical distinction between the human and non-human creation.<sup>48</sup> However, human sin, insofar as it is a distortion of creaturely relationality, does set humanity and non-human nature against each other.<sup>49</sup> Therefore, the restoration of the image of God in humanity brings about the restoration of the entire created order.<sup>50</sup> This adds further detail to Gunton’s conception of the life of Christ as a microcosm of all human life. Christ restores the image of God through a life of free obedience to God, and in so doing recapitulates and perfects the human story, and that of all creation.<sup>51</sup> Only Christ, who lives an authentic human life, can be the image of God. Hence, Gunton argues that we see Christ’s Atonement as substitutionary; it is a representative sample of perfected humanity, and as such is the image of God.<sup>52</sup>

---

<sup>46</sup> PTT, 114. C.f. R. J. Berry, *God’s Book of Works: The Nature and Theology of Nature* (London/New York: T. & T. Clark, 2003), 232. The consequence of Gunton’s argument is that we must acknowledge a definite hierarchy of the human over the non-human, (TCF, 41 and PTT, 118) without implying a devaluation of the non-human creation. (TCF, 36). C.f. PTT, 118

<sup>47</sup> CAC, 102

<sup>48</sup> TCF, 42

<sup>49</sup> Daniel L. Migliore, *Faith Seeking Understanding. An Introduction to Christian Theology* (Grand Rapids, MI/Cambridge: Eerdmans, 1991), 83

<sup>50</sup> TTC, 189-190. C.f. TCF, 61

<sup>51</sup> TAA, 154

<sup>52</sup> Gunton, ‘Atonement and the Project of Creation’, 38

(viii) The Atonement is universal in extent and effect but also *throughout time*. To understand this, we need to learn more of Gunton's understanding of *freedom*, which is a distinguishing mark of the human aspect of the created order.<sup>53</sup> The non-human creation lacks personal freedom and exhibits only the contingency that it holds in common with the created human order.<sup>54</sup> Human freedom is qualified and lost through sin, because sin is a distortion of relationships, primarily with God, but also *within* the created order. The action of the Word and Spirit restores freedom. Our freedom is restored in Christ, by his restoration of the relationships that enable human freedom. However, there is again the question of how a free historical act can restore our freedom in the present day. This is grace, and it is the work of the Spirit<sup>55</sup>;

In relation to God, human freedom comes from the divine action that graciously creates, upholds and redeems the creature who has preferred slavery to freedom. To be free is to be set free by the Spirit of the Father who is the Spirit of freedom. That is to say, true freedom is realized in communion with God, for unfreedom is, essentially, the loss of a right relationship to God.<sup>56</sup>

There are two important points to note here. First, human freedom is genuine, but is not achieved in competition to the divine freedom. The latter guarantees the former. Second, this divine action is trinitarian and mediated.<sup>57</sup> Hence, whilst it is true that we find our true humanity through Christ's life and death, this occurs through the Spirit, whose work is "*God creating authentic human reality in the here and now.*"<sup>58</sup> This is achieved as the Spirit relates us to Christ and makes his genuine humanity possible for us. This authentic humanity is authentic communal existence where the Spirit "makes possible individuality without individualism and community without

<sup>53</sup> IAA, 177. C.f. TCF, 44

<sup>54</sup> PTT, 153. C.f. TTC, 112 and Gunton, 'The End of Causality?', 70 and 73. Gunton criticises Process Thought for not maintaining this distinction. (PTT, 153)

<sup>55</sup> IAA, 182 and 185. C.f. EAA, 93 and CAC, 55

<sup>56</sup> AAB, 105

<sup>57</sup> IAA, 185 and 187. This links with Gunton's argument for distinguishing the action-in-relation performed by the Son and the Spirit. (e.g. Colin E. Gunton, 'Editorial', *IJOST*, 5:1 (2003), 1-2, (citation, 1); BB2, 228 and AAB, 27. For a more thorough articulation of the rationale for this motif, see AAB, 139-142) His main concern with this motif is of course to avoid any sense of modalism. For an excellent statement of this point see Robert W. Jenson, 'The Christian Doctrine of God', in Geoffrey Wainwright (ed.) *Keeping the Faith: Essays to Mark the Centenary of Lux Mundi* (Philadelphia, PA: Fortress Press, 1988), 25-53, (citation, 40)

<sup>58</sup> EAA, 103



authoritarianism.”<sup>59</sup> This is an eschatological reality, which exists proleptically as the Church.<sup>60</sup>

***(B) The Work of the Spirit: Pneumatology and Perfection***

Gunton’s thought on the action-in-relation of the Spirit is both very specific and very wide-ranging. It is specific in that for Gunton all the works of the Spirit can be understood in terms of one supervening motif; eschatological action, that “achieves anticipations of the reconciliation of all things in Christ.”<sup>61</sup> To do this, the action of the Spirit is *particularising and perfecting action*. At a cosmic level, and a personal level, the Spirit maintains and strengthens particularity – “relation in otherness” – not homogenisation.<sup>62</sup> The Spirit enables ways of acting in and towards the world.<sup>63</sup> We find this in all aspects of Gunton’s Pneumatology.

(i) Gunton uses this concept of particularity to describe the Spirit as *the perfecter of God*. He views the Spirit as a “focus of the distinctiveness of Father and Son – of their unique particularity”, as the force of the particularisation of the *hypostases*.<sup>64</sup> Thus Gunton can say that the “*substantiality* of God resides not in his abstract being, but in the concrete particulars that we call the divine persons and in the relations by which they mutually constitute one another.”<sup>65</sup> For Gunton this is again one of the strengths of the Cappadocian distinction between *ousia* and *hypostasis*, in that they made it possible “to conceive a priority of the particular over the universal.”<sup>66</sup>

---

<sup>59</sup> Ibid. 105

<sup>60</sup> TTT, 203

<sup>61</sup> Colin E. Gunton, ‘Towards a Theology of Reconciliation’, in Colin E. Gunton (ed.) *The Theology of Reconciliation* (London: T. & T. Clark, 2003), 167-174, (citation, 170)

<sup>62</sup> OTM, 182

<sup>63</sup> Ibid. 185

<sup>64</sup> Ibid. 190

<sup>65</sup> Ibid. 190-191

<sup>66</sup> Ibid. 191

(ii) The Spirit also perfects God by perfecting the divine love.<sup>67</sup> Gunton insists that we see this as something more than the Spirit's perfecting of the Father-Son relationship, because this love is then reduced to a closed circle.<sup>68</sup> We must think more in terms of Richard of St. Victor where "love limited to any two persons is intrinsically incomplete."<sup>69</sup> Therefore Gunton can say that it is the work of the Spirit to perfect the love of the Father and Son, by moving this love outward and involving the created order in the life of the Trinity.<sup>70</sup> This is because, according to Gunton, the very being of the Spirit is distinctively orientated towards *otherness* and so love for the other is therefore intrinsic to the perfection of the divine love and being.<sup>71</sup> God is love because he is both orientated towards the other within his eternal being, but also because his inner drive or orientation is for this love to move outwards and create a world which he loves and wishes to be in relation with.<sup>72</sup> In the Immanent Trinity there is a double focus on "the orientation to otherness and the perfection of particularity."<sup>73</sup>

(iii) So far we have seen that the Spirit perfects *by* particularising, as exemplified in Gunton's emphasis on the twofold perfection of the created order by the Spirit. First the Spirit "the Lord and Giver of Life, gives reality to *the world* by relating it to the Father who originates through the Son that which is genuinely other and yet, because it is through the Son, the one who was to become incarnate, it is not what it is outside a continuing relation to God."<sup>74</sup> The world is particularised, and in a sense then perfected, by the securing and delimiting of its creaturely reality. Second, there is the eschatological action "according to which the creation is finally brought to its perfection, its completedness, in the fullness of time."<sup>75</sup> Again, this involves no loss of particularity, of created otherness, but is instead its ultimate realisation. Such a

---

<sup>67</sup> Ibid. 190

<sup>68</sup> BB2, 239. C.f. TCF, 186

<sup>69</sup> TTT, 126

<sup>70</sup> TTT 127

<sup>71</sup> Gunton, *The Holy Spirit Who with The Father and the Son Together is Worshipped and Glorified* C.f. TCF, 185-6. The Spirit is the *energy* of the love of the Father and Son. (AAB, 120)

<sup>72</sup> TCF, 186-7. C.f. AAB, 146; BB2, 240; TTT, 127 and Gunton, 'The Spirit in the Trinity', 130.

<sup>73</sup> AAB, 120

<sup>74</sup> IAA, 104

<sup>75</sup> Ibid. 104. C.f. TTT, 120

scheme “will allow us to particularise the creation much more: to give more stress both to its particular reality as *this* universe, the one created by God *for a purpose*, and to the being of the particular things and persons of which it is constituted.”<sup>76</sup> The perfection of the created order therefore involves *an inherent asymmetry* – the end is different to the beginning – and so reinforces our understanding of the purposive nature (and so reality) of the created order.

(iv) Finally, we can move to Gunton’s discussion of the relationship between pneumatological action-in-relation and the Incarnation. Gunton argues that the Incarnation can be considered to be non-interventionist on pneumatological as well as christological grounds.<sup>77</sup> The parallelism lies in the integrity of createdness that the Spirit maintains through particularising action-in-relation. Specifically, the Spirit here maintains the createdness of the flesh of Christ, and so secures the humanity of his actions, which is integral to Christology.<sup>78</sup> Gunton consistently argues that we need “an incarnational Christology which will yet do full justice to the historical particularity of Jesus and the detailed lineaments of his life.”<sup>79</sup> Controversially, for Gunton this involves insisting that the flesh of Christ is *fallen*.<sup>80</sup> However, this is not to deny the unique sinlessness of Christ, because genuine humanity involves fallibility and contingency, but *not* sinfulness.<sup>81</sup> The point of Gunton’s Pneumatology is precisely to explain how the sinlessness of Christ and the fallenness of his flesh can be maintained simultaneously. The point of this is to see that “the saving activity

<sup>76</sup> IAA, 105. C.f. Gunton, ‘The End of Causality?’, 81. For a succinct statement of this point, based in part on Gunton’s argument see Iain R. Torrance, ‘The Trinity in Relation to Creation and Incarnation’, *NZSTh*, 38:1 (1996), 29-37, (citation, 37)

<sup>77</sup> TTT, 118

<sup>78</sup> Colin E. Gunton, ‘Two Dogmas Revisited: Edward Irving’s Christology’, *SJOT*, 41:3 (1988), 359-376, (citation, 364-365)

<sup>79</sup> Ibid. 361. C.f. TTT, 86, 114–115 and 163; PTT, 69 and CAC, 56-57. For an excellent introduction to this aspect of Irving’s thought, see Graham W. P. McFarlane, *Christ and the Spirit: The Doctrine of the Incarnation According to Edward Irving* (Carlisle: Paternoster Press, 1996)

<sup>80</sup> TCF, 101, based on Romans 8:3 and 2 Corinthians 5:21. C.f. Gunton, ‘Two Dogmas Revisited’, 366 and Harry Johnson, *The Humanity of the Saviour: A Biblical and Historical Study of the Human Nature of Christ in Relation to Original Sin, with Special Reference to its Soteriological Significance* (London: Epworth Press, 1962), 194. For a recent treatment on the vagueness of the term ‘fallen’ with respect to the flesh of Christ, see Kelly M. Kapic, ‘The Son’s Assumption of a Human Nature: A Call for Clarity’, *IJOST*, 3:2 (2001), 154-166

<sup>81</sup> PTT, 67

of Jesus is *accomplished humanly in time*.<sup>82</sup> The Spirit enables Christ to have an *active* sinlessness.<sup>83</sup> The Spirit “maintains and empowers the human activity” of Jesus.<sup>84</sup>

(v) Gunton ties this pneumatological action into his understanding of transcendence and immanence. From Edward Irving, he develops a transcendent and personal conception of the Spirit, wherein Christ’s sinlessness is a free personal response to a *personal other*, as opposed to a “programmed outcome of an *immanent* directionality.”<sup>85</sup> The Spirit’s action here is also a particularising action, and so paradigmatic of the Spirit’s work throughout the cosmos.<sup>86</sup> Jesus Christ is not simply the Word made flesh, but made *this particular* flesh.<sup>87</sup> The life of Christ is a particular life, “*enabled* by the (transcendent) Spirit rather than *determined* by the (immanent) word.”<sup>88</sup> The point of all this is to affirm that Christ *becomes* perfect, becomes sinless, through the whole of his ministry.<sup>89</sup> In other words, the work of the Spirit guarantees that Christ’s is a real human (and so personal) existence.<sup>90</sup> To understand this, Gunton uses the metaphor of space with which he describes the reality afforded to the created order in its relationship with the triune God. Therefore to talk of the genuine humanity (and fallenness) of Christ’s human nature, is to talk of the “*space*” needed for the “freedom, particularity and contingency” of the

<sup>82</sup> CAC, 50. My italics. C.f. TTT, 115

<sup>83</sup> IAA, 106. C.f. TTT, 161 and CAC, 53, n13 and 57. As such, there is obviously a connection with the doctrine of Atonement as a recapitulation. (Thomas F. Torrance, *The Mediation of Christ* (Edinburgh: T. & T. Clark, 1992), 41)

<sup>84</sup> TTT, 115. The Spirit in this way can be said to be active as a person. C.f. also CAC, 56-57

<sup>85</sup> Gunton, ‘Two Dogmas Revisited’, 369–370. My italics. There is more on Irving’s pneumatological transcendence and christological immanence on 374. C.f. PTT, 68 and OTM, 182

<sup>86</sup> CAC, 59. C. f. TAA, 167

<sup>87</sup> Colin E. Gunton, ‘Salvation’, in John Webster (ed.) *The Cambridge Companion to Karl Barth* (Cambridge: Cambridge University Press, 2000), 143-158, (citation, 153). C.f. TCF, 100; PTT, 69 and TTT, 114

<sup>88</sup> PTT, 70. CAC, 52

<sup>89</sup> TCF, 103 and 105. The alternative position is obviously to attempt to hold to both the sinlessness and true humanity of Christ. For a thoughtful version of this argument, with some criticisms of Irving’s argument, see Donald MacLeod, ‘The Doctrine of the Incarnation in Scottish Theology: Edward Irving’, *Scottish Bulletin of Evangelical Theology*, 9:1 (1991), 40–50 and idem. *The Person of Christ* (Leicester: Inter-Varsity Press, 1998). Gunton describes such a position as one in which Jesus Christ “can only be the redeemer if his perfection is guaranteed in advance, only, that is, if his flesh is in effect that of unfallen Adam.” (CAC, 51)

<sup>90</sup> For an example of the thorough connection Gunton makes between Pneumatology and Christology, see IAA, 80

humanity of Jesus.<sup>91</sup> Finally, this pneumatological emphasis within Christology contributes to Gunton's understanding of the universality of the Atonement. The Holy Spirit is "the source of Jesus' self-giving humanity, and that same spirit which enables believers to share in the one reordering sacrifice."<sup>92</sup> As we shall see in the next chapter, the work of the Spirit is the applying of the benefits of Christ to the believer in terms of Ecclesiology<sup>93</sup> (creation of the community which is the Church) and Providence.

### *(C) Critique*

(i) There is one particular aspect of Gunton's close connecting of Christology and Pneumatology that has raised difficulties, and this is the fact that present tense divine action is seen almost exclusively in pneumatological terms. Paul D. Molnar has made this complaint with regard to Gunton's understanding of the Incarnation.<sup>94</sup> For Molnar, Gunton's theology is not so much redressing a balance between christological and pneumatological action (which is how Gunton perceives his own argument) as forcing an imbalance in favour of Pneumatology. Molnar has two distinct issues with Gunton's thought; "(1) he argues that Jesus' significance derives equally from his humanity; and (2) he argues that the Spirit rather than the Word is the source of Jesus' authentic humanity."<sup>95</sup> Gunton is in danger of over-emphasising the humanity of Christ at the cost of his nature as the Word incarnate, and in so

---

<sup>91</sup> PTT, 70. My italics. C.f. Gunton, 'The End of Causality?', 79. In the same way we see Gunton praising the thoroughly trinitarian framework which he is adopting from Irving. (Gunton, 'Two Dogmas Revisited', 362-364) As Jim Purves puts it, Irving sees Jesus Christ as "the predicate of the Triune God's dynamic involvement with humankind in and through the Incarnation, as Father, Son and Holy Spirit." (Jim Purves, 'The Interaction of Christology and Pneumatology in the Soteriology of Edward Irving', *Pneuma*, 14:1 (1992), 81-90, (citation, 83)). C.f. I. McFarland, 'Christ, Spirit and Atonement', *IJOST*, 3:1 (2001), 83-93, (citation, 87). C.f. Ibid. 93. Thomas G. Weinandy makes a similar argument on the enabling of Christ by the Spirit, but without discussing the nature of this enabling. (Thomas G. Weinandy, *In the Likeness of Sinful Flesh: An Essay on the Humanity of Christ* (Edinburgh: T. & T. Clark, 1993), 150)

<sup>92</sup> Colin E. Gunton, 'Christ the Sacrifice: Aspects of the Language and Imagery of the Bible', in L. D. Hurst and N. T. Wright (eds.) *The Glory of Christ in the New Testament: Studies in Christology in Memory of George Bradford Caird* (Oxford: Clarendon Press, 1987), 229-238, (citation, 238)

<sup>93</sup> Gunton, 'The Sacrifice and the Sacrifices', 22

<sup>94</sup> Molnar, *Karl Barth and the Theology of the Lord's Supper*, 297

<sup>95</sup> Ibid. 282

doing, he runs the risk of separating the action of the Word and Spirit both in his Christology and in other aspects of his theology.<sup>96</sup>

Gunton understands the obedient life of Jesus to be something he humanly achieved through his enabling by the Spirit as the transcendent other. Molnar perceives this obedience on such an understanding then to be something only traceable to the Spirit and the humanity of Christ, to the extent that the Spirit and Word are being played against each other.<sup>97</sup> Following Barth, Molnar argues that the Incarnation is always an action of the Word, who remains the subject of the Incarnation; for him this is a point that Gunton constantly omits or at least plays down.<sup>98</sup> For instance, he asks why must the work of the Word, when seen outside of a pneumatological framework, be understood as a divine programming? Why can we not instead acknowledge the enabling action of the Spirit without resorting to an explanation of *how* this can be the case?<sup>99</sup>

In Gunton's defence, the present author is by no means certain that Gunton ever attempts to answer the question of how this is the case, either. The solution is to realise *whose* enabled human activity we perceive in the Incarnation. For Gunton, in Christ there is one personal action, which is simultaneously that of the Word and of the human nature of Jesus.<sup>100</sup> The work of the Spirit therefore is to enable "*the human activity of the Incarnate Son*."<sup>101</sup> Nonetheless, it is certainly true that this point is not adequately emphasised, as a cursory glance at our treatment of his Pneumatology in this chapter will make clear. In the same way, it is this inadequate emphasis that leads Molnar to his criticisms of Gunton's Soteriology. In particular, Molnar again seems to think that Gunton underplays the significance of the action of the Son in the atoning death of Christ;

---

<sup>96</sup> Ibid. 282

<sup>97</sup> Ibid. 282

<sup>98</sup> Ibid. 284. He quotes Barth on this point, from *CD*, I/2, 134, on 285

<sup>99</sup> Ibid. 285

<sup>100</sup> TCF, 95, n132, based on an argument of P. T. Forsyth

<sup>101</sup> TTT, 115. My italics



Is it because of Jesus' free obedience, even as enabled by the Spirit, that redemption is achieved? Or is it because the offering he made to the Father was an offering made by the Son of God himself in the flesh?<sup>102</sup>

The answer is, of course, both. Whereas, for Molnar, Gunton has "to a certain extent" overplayed the enabled human action and downplayed the divine action we perceive in Christ, such that Jesus becomes "a passive object who does little more than illustrate for us certain human features that are attributed to the action of the Spirit rather than the Word."<sup>103</sup> This criticism does not hold water when this human action is understood to be that *of* the Word made flesh.

(ii) So far, we have seen that Fermer's critique of Gunton and Zizioulas has moved from trinitarian theology *per se*, to its wider application to the theology of creation. However, Fermer is also deeply concerned with the implications of their theologies for the theological understanding of personhood. Fermer argues that the Cappadocian concept of *hypostasis* is precise and useful in its simplicity, but it is doubtful as to whether this term can be translated as person.<sup>104</sup> Hence Gunton's/Zizioulas' attempt to rebaptise the term person as *hypostasis*, must come under scrutiny. Is the term firm enough to avoid an influx of ideologies (Mackey), and is it sufficient for a definition of human personhood?<sup>105</sup> Fermer wishes to be more precise and distinguishes between the terms 'person' and 'personal', and so propounds a theological formula "one being, three *personal* subsistences."<sup>106</sup> Why should one use the term personal? Because it allows one to refer to "the ability to have intentional mental states, to be able to relate to another person or personal existence in a dialogical manner, but without reverting to the language of consciousness."<sup>107</sup> This is essential because "not all the psychological properties of human persons can be transposed to the divine nature" and yet God is personal, especially in that he can enter into relationships with persons.<sup>108</sup> For Fermer, to be a person is to be corporeal.<sup>109</sup> The question then, is the

<sup>102</sup> Molnar, *Karl Barth and the Theology of the Lord's Supper*, 296

<sup>103</sup> Ibid. 298

<sup>104</sup> Fermer, 'The Limits of Trinitarian Theology', 176

<sup>105</sup> Ibid. 177

<sup>106</sup> Ibid. 178

<sup>107</sup> Ibid. 178

<sup>108</sup> Ibid. 179, n86

extent to which Gunton's (and Zizioulas') conception of personhood is viable with regard to humans. Fermer isolates two distinct motifs in the theologies of personhood as put forward by Gunton/Zizioulas. These are "(i) that a person is a *hypostasis*, a unique, particular existence; and (ii) that persons are constituted by their relations."<sup>110</sup>

On this first motif, Fermer is clear as to the difficulties in Gunton's scheme. He argues that Gunton uses the transcendental of "substantiality" as equivalent to *hypostasis*, except that the former has some non-trinitarian applications.<sup>111</sup> Fermer's criticism is quite simply that talk of uniqueness is uninformative and tells us very little about the human person.<sup>112</sup> In terms of human personhood, the properties of uniqueness, distinctness and particularity "appears deeply impersonal", indeed, Fermer asks what it is that distinguishes the *hypostasis* of the person from the *hypostasis* of a stone?<sup>113</sup>

Fermer moves on to discuss the concept of personhood as relational, and queries whether this also can be expressed meaningfully. Fermer rightly points out that certain relational concepts of personhood can be inherently circular whereupon it becomes difficult to determine who or what is doing the relating. Here, the issue is how these relationships can arise in the first place.<sup>114</sup> Moreover, Fermer is concerned to elucidate the contributions of our specifically human nature to personhood as understood by Gunton and Zizioulas.<sup>115</sup> He asks "what is it about relationality which confers personhood, as opposed to the status of an animal or inanimate object which are also relational entities?"<sup>116</sup> In short, Fermer is concerned with the implications of Gunton's/Zizioulas' scheme for anthropology, in that he perceives "a downgrading of the common human capacities and nature which is part of the "what" and "who" which allows one to enter into relationships in the first place. Are not our common

---

<sup>109</sup> Ibid. 179, n86

<sup>110</sup> Ibid. 179

<sup>111</sup> Ibid. 179, n87

<sup>112</sup> Ibid. 179-180

<sup>113</sup> Ibid. 180

<sup>114</sup> Ibid. 181

<sup>115</sup> Ibid. 182

<sup>116</sup> Ibid. 183

human nature and capacities, although not a sufficient definition of the concept of personhood, vital constituents?"<sup>117</sup>

The first brief response we must make is on this question of uniqueness and hypostatic nature. It is clear that Gunton does in fact affirm creaturely particularities, and utilises at least two transcendentals (particularity and substantiality) in his discussion. What is particular and unique therefore is each individual (and yet relational!) person. But is this really so vague and uninformative? Zizioulas has argued somewhat convincingly that this is not the case, and with some reservations that we shall adumbrate, his argument is very similar to that of Gunton. On a relational and particular understanding of personhood, the particular emerges as being itself, and does not depend for its identity on common qualities, but solely through a relationship that constitutes it as an ontological ingredient. This results in a communal existence in which each particular is affirmed as *unique* and irreplaceable through relationships with other personal particulars.<sup>118</sup> The point here is quite simply that personhood *is* about uniqueness.<sup>119</sup> To make this argument appropriate to Gunton's thought and our purposes, we have to make a distinction (which Zizioulas is apparently less concerned with) between the person as particular and unique, and the person as a relational entity. The person as a hypostatic result of being-through-communion is distinguished as unique apart from all classifiable properties. This is because "what matters ontologically is not 'what' one is but the very fact that he or she *is* and *not someone else*."<sup>120</sup> However, and this brings us on to Fermer's second objection, as personal and relational, Gunton makes it clear that *relationality* does involve classifiable and common properties and qualities.

To move onto Fermer's second point therefore, he is correct to insist that a concept of human personhood involves what we might refer to as empirically verifiable human attributes. Indeed, Gunton appreciates this and states explicitly a degree of parallelism between inanimate and human *hypostasis*, which parallelism is the result

---

<sup>117</sup> Ibid. 182

<sup>118</sup> Zizioulas, 'On Being a Person', 41-42

<sup>119</sup> Ibid. 45

<sup>120</sup> Ibid. 45

of, for instance, similar spatiotemporal, physical, (bio)chemical processes. This informs our understanding of what Gunton calls the horizontal relationality of creatures, and of course in the case of humans, uniquely human capacities will inform our understanding of horizontal human relationality.<sup>121</sup> Human uniqueness, and this seems to be lacking in Fermer's critique, centres on the *imago Dei*, and is founded and maintained "by virtue of the creating *and redeeming* agency of the triune God."<sup>122</sup> In other words, it is due to a unique form of vertical relationality that uses creaturely horizontal relationality, as we can see by the fact that the image is eschatological and directed by divine action towards perfection.<sup>123</sup>

(iii) Gunton's concept of the created order as a project undergoing perfection through the action of the two hands of God is central to his theology. However, it is not without difficulties. In the next chapter we will find that he regards the enabling of the creature to praise the Creator to be an example of proleptic perfection. Nonetheless, Gunton is somewhat vague as to what perfection is, and how it is being achieved in the present. Many readers will also have difficulty with his universalism, which represents an optimism with regard to human activity, which might be perceived to downplay the seriousness of sin and its consequences. However, it is really Gunton's understanding of the *present* consequences of sin which are particularly significant. He himself admits to a potentially Pelagian view of human sin and perfecting<sup>124</sup>, and it is certainly the case that his theology takes little account of how our ongoing sinfulness can affect the reinaugurated eschatology of the natural order. Moreover, he not only lacks a thorough treatment of moral evil, but this is also the case for physical evil. What is the connection between suffering and the final destiny of the natural order? He has fleetingly intimated that suffering and disorder may be due in part to the unfinished nature of the project of creation, but this does

---

<sup>121</sup> However, Edward Russell has argued, with some justification, that Gunton's theology does not adequately treat of these horizontal contributions to human personhood. (Edward Russell, 'Reconsidering Relational Anthropology: A Critical Assessment of John Zizioulas' Theological Anthropology', *IJOST*, 5:2 (2003), 168-186, (citation, 184)

<sup>122</sup> PTT, 116-117. My italics

<sup>123</sup> Ibid. 118

<sup>124</sup> TCF, xii

not clarify whether or not suffering has a *place within* the ongoing perfecting of the created order, as it does within Irenaeus' understanding of the project of creation.

### ***Conclusion***

In this chapter we have covered a great deal of theological ground, much of what at least in its detailed lineaments is not immediately applicable to a dialogue with science. What is applicable however, are the suggestions Gunton provides for how to envisage the work of the two hands of the Father as *guaranteeing* but also in a sense *restoring* the createdness (and so the true identity) of the natural order. The world is characterised theologically as a created project with an eschatological destiny. This projective nature is very much essential to its created identity, because it signifies the world's intrinsic purpose and reality, and provides the context for the divine action-in-relation that through Atonement and sanctification/perfection restores the world to its eschatological orientation, and fulfils that orientation in ultimate perfection. A second important aspect of Gunton's discussion is the *naturalness* of divine action-in-relation here. The two hands model illustrates beautifully the *continuing* and *active* nature of the God-world relationship, mediated by the Son and Spirit of God. We have already seen that this thwarts Deism and Pantheism, but we now see that the gratuity of the act of creation does not mean that the act is somehow alien to God, or that it involves some form of kenosis or self-limitation. Moreover, it does not threaten but again confirms the intrinsic identity of the natural order. The naturalness of the Incarnation, as an element within the perfection of the world and not just its redemption or repair, and the perfecting of the divine love by the Spirit as a 'naturalising' of action-in-relation, demonstrates that *all* divine action contributes to the world's perfecting and so maintains and upholds the createdness of the world. There is no competitiveness or contrasting within the God-world relationship because the world finds its intrinsic reality - its createdness - guaranteed and guided towards perfection through the work of the two hands. Through this work there is a 'space' for the world, with its own contingent reality that can be explored through the natural sciences.

## Chapter 4: Divine Action-in-Relation (II) – The Doctrine of the Church and the Doctrine of Providence

### *Introduction*

In this final chapter on Gunton's theology we come to his discussions of concrete divine action-in-relation. His Ecclesiology and doctrine of Providence take forward much of what we examined in the previous chapter, and in particular the thoroughly trinitarian framework of christological and pneumatological action and his characteristic emphasis on securing the createdness of the natural order. A discussion of Gunton's doctrine of the Church enables us to go into the perfecting work of the Spirit in more detail, both as an eschatological and a proleptic action. We also find more detail on how the action of the Word and Spirit hold together. On the other hand, his doctrine of Providence provides an opportunity for us to discuss the more technical theological and philosophical aspects of divine action, especially with regard to the natural order as the divine project.

### *(A) Human Being-as-Communion: The Church as the Work of God*

It might seem surprising to include a treatment of Gunton's Ecclesiology in a thesis that is ostensibly orientated to an issue at the science-theology interface. However, we would argue that it is in fact of vital significance. This is because in Gunton's theology the doctrine of the Church contains his most extensive treatment of the conditions of the eschatological perfection of the created order. The Church, because of its nature as a community of persons and the human culture it enacts, exists in those conditions of perfection for the whole of creation. It is where we find the context for the restored image of God – a dynamic of life and worship.<sup>1</sup> However, all of this is due to trinitarian action-in-relation, and in Gunton's theology the Church is arguably the most concrete locus for trinitarian action-in-relation. Therefore, the

---

<sup>1</sup> CAC, 107



doctrine of the Church is important because it provides the greatest context for understanding the relationship between divine action and createdness.

(i) The Church is the context in which the universality of the Atonement is particularised through the action of the Holy Spirit.<sup>2</sup> In other words, “we attribute to the Holy Spirit the distinctive action of not so much a general “applying” of the benefits of Christ as a “particularising” in the present of the blessings, mediated through Christ, of the world to come.”<sup>3</sup> We are dealing in fact with a perfecting of the work of Christ through “its realisation in time by the work of the Spirit who brings particular people into the community of the reconciled.”<sup>4</sup> In short, Gunton is arguing for a *present tense* divine action-in-relation, *at a concrete locus*. It is this emphasis on concreteness that allows Gunton to argue that the work of the Spirit is not ‘otherworldly’; on the contrary, he argues that the Spirit “reproduces the movement of God *into* not *out* of time.”<sup>5</sup>

(ii) The action of the Spirit is to enable aspects of the present created order to prefigure the world to come, and so to become what they are intended to be. This finds a concrete locus in the worshipping action, and the relational existence of the Church community. In terms of worship, Gunton is specifically, but not exclusively, referring to the sacraments of Baptism and the Lord’s Supper, the latter being described as the *gift of perfected creation*.<sup>6</sup> The Church is therefore “the place where the goodness of the creator and the creation are faithfully celebrated.”<sup>7</sup> The sacraments are eschatological acts “whereby the whole created order is taken up, by anticipation, into the praise of the creator.”<sup>8</sup> For Gunton, any human activity, any form of culture, is at least potentially capable of worshipping God, and so finding a

---

<sup>2</sup> TAA, 170

<sup>3</sup> Gunton, ‘The Sacrifice and the Sacrifices’, 223-224. Gunton can also refer to this as a perfecting of the work of Christ, where perfecting equates to particularising. (TCF, 164)

<sup>4</sup> TCF, 164. C.f. TTC, 202 and TAA, 170

<sup>5</sup> EAA, 105

<sup>6</sup> Gunton, ‘The Sacrifice and the Sacrifices’, 224-5. C.f. CAC, 46

<sup>7</sup> Farrow, *Ascension and Ecclesia*, 68

<sup>8</sup> TCF, 134

proleptic perfection. As such, the worship of the Church, another aspect of human culture, is not unique.<sup>9</sup> Moreover, as human culture, this human agency is enabled by the Spirit. This is the point of the term *inspiration*.<sup>10</sup> The same is true of the communal nature of ecclesial life. This is an eschatological existence in which there is authentic freedom as a gift of the Spirit.<sup>11</sup> This is achieved by the reorientation of creation to created otherness-in-relation, through the formation of communities in which human particulars (persons) can exist as “distinctively and particularly themselves.”<sup>12</sup> Therefore Gunton can say that the “Church is a community, not a collective.”<sup>13</sup> In other words, the Church exhibits in anticipatory form the nature which human being-in-relation is intended to be.

(iii) For Gunton, the nature of the Church must be seen as something that is historically conditioned but also only realised in the here and now. If the Church is merely an institution, then it is a threat to human freedom.<sup>14</sup> True freedom is found in community, in the free relatedness of persons, whereas an institution exists independently of and “logically prior to the persons who become part of it.”<sup>15</sup> We must then focus on the present tense action of the Spirit, who as the *transcendent Lord* creates community by bringing men and women to the Father through Jesus Christ.<sup>16</sup> Because this is the action of the transcendent *Lord*, we see the prevenience of the Spirit. Because this is the act of the *transcendent Lord*, there is no danger of identifying the Church with the Spirit. The alternative is to see the Spirit as the

<sup>9</sup> Ibid. 50. In worship (and in culture, suitably enabled by God), we find “creation’s eschatological orientation restored.” (FSH, 122). We might also note that Gunton is here affirming the divine prevenience and so the sovereignty of divine action. He makes this especially clear when he argues that culture (and so we might imagine the rest of the created order) is never outside the over-ruling power of God, and is in fact *allowed* to a potentially destructive course. (Ibid. 121)

<sup>10</sup> Colin E. Gunton, ‘Pneumatology’, in Paul Barry Clarke and Andrew Linzey (eds.) *Dictionary of Ethics, Theology and Society* (London: Routledge, 1996), 644-677, (citation, 647). C.f. TCF, 51. Gunton can therefore speak positively of religious and non-religious human culture insofar as it can worship God through the activity of the Spirit. Gunton can go so far as to say that it would not be inappropriate to speak of the Spirit hiding Michelangelo’s David within the block of marble. (personal communication)

<sup>11</sup> IAA, 188

<sup>12</sup> Ibid. 189

<sup>13</sup> OTM, 183. C.f. IAA, 80; Gunton, ‘The Spirit in the Trinity’, 129 and Farrow, *Ascension and Ecclesia*, 68

<sup>14</sup> TTL, 11

<sup>15</sup> Ibid. 11

<sup>16</sup> Ibid. 8

motive power for an already extant institution.<sup>17</sup> This is not to deny that Church is an institution, insofar as it is a reality historically founded by the Son of God.<sup>18</sup> However, just as the Son *institutes* the Church and gives it “immanent historical existence”, so in the present the Spirit *constitutes* it.<sup>19</sup> More precisely, the Spirit achieves this by enabling our acts of worship;

The Spirit is the institution’s transcendent Lord, reconstituting the Church by calling into it new members and constituting it anew in each act of worship.<sup>20</sup>

As such, the Church *is* the eschatological community through the performing of these acts of worship, because here we are “positioned in the realm of the eschatological kingdom while we live in created time and space.”<sup>21</sup> This duality of divine action in Ecclesiology is characteristic of all divine action for Gunton. For him, all pneumatological action can be understood as *constitutive*, whereas christological action is *institutionary*.<sup>22</sup> Hence, Gunton can say of pneumatological action that it is an action “which is over and above the past action of the Son, though it is oriented to it.”<sup>23</sup>

---

<sup>17</sup> Ibid. 13. C.f. Gunton, ‘The Spirit in the Trinity’, 127

<sup>18</sup> TTL, 12

<sup>19</sup> Ibid. 13

<sup>20</sup> Ibid. 17. C. f. Ibid. 15-16 and PTT, 82-83

<sup>21</sup> Colin E. Gunton, ‘Until He Comes’: Towards an Eschatology of Church Membership’, *IJOST*, 3:2 (2001), 187-200, (citation, 198). C.f. TCF, 122

<sup>22</sup> The reference to the past action of the Word indicates one of the main problems with Gunton’s doctrine of divine action, which we have already briefly discussed in the previous chapter. There is a definite blind spot in Gunton’s theology with regard to present tense action of the Word.

<sup>23</sup> Gunton, ‘The Spirit in the Trinity’, 128. We find a similar dual ecclesiological focus on Christology and Pneumatology in John J. O’Donnell’s book, *The Mystery of the Triune God* (London: Sheed & Ward, 1988), 84-5. This emphasis on present-tense divine action is particularly clear in Gunton’s treatment of Election. For him, the doctrine normally envisages a pre-temporal and deterministic divine action. (BB1, 182. C.f. IAA, 158-159) This lacks particularity which Gunton seeks to recover through Pneumatology. (TCF, 163. C.f. Gunton, ‘The Spirit in the Trinity’, 128 and IAA, 152) Election is a personal activity of the Spirit (TTT, 201. C.f. TTL, 14-15 and Gunton, ‘The Triune God and the Freedom of the Creature’, 64), which is prevenient but not deterministic. (IAA, 143 and 145. C.f. TTL, 15. and Gunton, ‘The Triune God and the Freedom of the Creature’, 51-53) This divine action is of course purposive, reflecting the Church’s call to eschatological forms of existence, rather than post mortem destiny. (IAA, 146, 148 and 154. C.f. TAA, 171; TCF, 127 and TCF, 164) As such, there is definite continuity with Gunton’s concept of the image of God.

*(B) God in Action: The Doctrine of Providence*

Our discussion of Gunton's Ecclesiology demonstrates that divine action-in-relation must *always* be discussed as trinitarian – as the action of Word and Spirit. Divine action-in-relation again must always be discussed in its eschatological nature, as that which perfects the natural order and so confirms its createdness. Therefore, although the Church cannot exist without the work of the two hands of the Father, it does not represent the annihilation of human existence. On the contrary, because it is an *eschatological* (anticipatory) community of *redeemed* human existence then createdness is actually in a sense fulfilled. What remains now is to explore in more detail how Gunton understands divine action-in-relation and created action to be related, such that createdness is secured and fulfilled.

(i) The context of a discussion of Providence or divine action for Gunton involves two motifs we have already encountered. First, we must keep in mind the God-world relationship, because the world can only become what it is meant to be *by* God's creating, reconciling and perfecting actions. Second, we must also keep in mind the space that Gunton argues is a part of this relationship, because God acts to enable the world to be itself. Divine action therefore is centred on the God-world relationship and all that it entails, and hence we refer to it as action-in-relation.<sup>24</sup> The relevance of this for Gunton is seen in a very early treatment of Process Theology, in which the action aspect of action-in-relation is perceived to be missing. Here he argues that for the God of Process, initiative "can only be secondary to God's essentially passive role as a cosmic memory. And there is reason to believe that the logic of the concept actually precludes the taking of initiatives by God."<sup>25</sup> This is because, strictly speaking, it is only the abstract pole of God that acts as such. Thus Gunton can say of Hartshorne's understanding of divine activity that;

---

<sup>24</sup> IAA, 133

<sup>25</sup> Colin E. Gunton, 'Process Theology's Concept of God: An Outline and Assessment', *Expository Times*, 84 (1973), 292-296, (citation, 294)

Instead of the unmoved mover, he has achieved the conception of an equally ineffective deity: the moved unmover.<sup>26</sup>

Process theology rightly affirms the divine relationality, but as we have had reason to point out already, this can be reduced to emanationism if there is not divine activity as well.

(ii) Gunton is also insistent on the traditional motif of a distinction between creation and Providence. Creation and Providence are distinguished because they represent two different tenses of divine action. For Gunton, the doctrine of creation *ex nihilo* refers to the past tense of createdness. What delimits this is the (present tense) continuing action of God in upholding, directing and completing what was once begun.<sup>27</sup> Providential divine action is the divine action that *acts towards the destiny of the project of creation*<sup>28</sup>; as such, it is not *precisely* the same action that creates. There is no longer any creation *ex nihilo*, and so what is left is “simply what creator and creature alike and together make of what has been made.”<sup>29</sup> We have seen already that Gunton refuses to equate the concept of creation with an ongoing dependence of the world upon God. He reiterates the point in particular if creation is identified with Providence.<sup>30</sup> As such, Gunton queries the need for a doctrine of ‘continuous creation’, suggesting that we should rather use concepts of Providence or conservation.<sup>31</sup> Here we do not see a continuation of the act of creation, but rather “the continuation of God’s creation through his disposing and ordering presence within it through the incarnate Word.”<sup>32</sup>

<sup>26</sup> BB1, 41

<sup>27</sup> TTC, 88

<sup>28</sup> TCF, 20 and 25

<sup>29</sup> TTC, 89. C.f. Otto Weber, *Foundations of Dogmatics: Volume One* (tr. and annot. Darrell L. Guder) (Grand Rapids, MI: Eerdmans, 1981), 505 and G. C. Berkouwer, *The Providence of God* (tr. Lewis B. Smedes) (Grand Rapids, MI: Eerdmans, 1952), 73

<sup>30</sup> TTC, 191

<sup>31</sup> Ibid. 89, n46. The distinction between creation and providence is lost in both pantheism and deism, because Pantheism loses the concept of creation and Deism loses the concept of providence. (Bavinck, *In the Beginning*, 245)

<sup>32</sup> Thomas F. Torrance, *The Christian Doctrine of God, One Being Three Persons* (Edinburgh: T. & T. Clark, 1996), 222-223

(iii) Creation and Providence are not to be identified, but neither are they to be radically distinguished. For Gunton, this latter point seems to be based on both the identity of the agent, and the purpose behind the action. We have already encountered this in Gunton's insistence that the Incarnation and the work of the Spirit are not to be understood as interventions into created order. Moreover, because the created order is a project, or God's work of art, we know that all divine action is orientated towards its perfection. In principle, therefore, Providence involves no new concepts.<sup>33</sup> There is continuity between the divine action in the Incarnation and in General Providence.<sup>34</sup> Therefore, we can also talk of the Spirit as the "upholder of the everyday", whilst maintaining that he is the eschatological agent of perfection.<sup>35</sup> The Spirit "thus both shapes the interacting fields of force that are the universe and is the one who realises those particular surges of divine activity which call created beings back from destruction and on to their course to perfection."<sup>36</sup>

(iv) For Gunton, the action of Christ - in obedience to the Father and in the power the Spirit makes actual in him - is providence in constitutive and definitive action.<sup>37</sup> The created order is a world that can only achieve its final perfection through the death of the mediator of creation upon the cross. Christ is the exemplar of all divine action then "as those acts which enable the world to become itself by action within, and over against, its fallen structures."<sup>38</sup> God's providence limits evil, and the cross is the climax of God's providence.<sup>39</sup> However, at the same time, Gunton affirms the divine sovereignty<sup>40</sup> and omnipotence<sup>41</sup> as expressed through the act of creation. How are we to correlate divine power, with the power of God crucified in Christ?

---

<sup>33</sup> TTC, 176

<sup>34</sup> Ibid. 176-177

<sup>35</sup> Ibid. 177

<sup>36</sup> Ibid. 178

<sup>37</sup> TCF, 37. C.f. Ibid. 31

<sup>38</sup> TTC, 189-190. In the human, spatiotemporal victory of Christ, the rule of God is re-inaugurated, but not yet completed. (TCF, 74)

<sup>39</sup> TTC, 174

<sup>40</sup> TCF, 4

<sup>41</sup> Ibid. 17



The solution lies in understanding who is acting, and who is powerful. Creation is not an act of unbridled power, it is the power of the God and Father of Jesus Christ, and as such is power exercised in mediation, through the two hands of the Father.<sup>42</sup> *This* is exemplified in the Incarnation. Here, the Son of God in the power of the Spirit demonstrates a capacity to enter into the world and interact with it, “perfecting rather than constraining, or rather constraining its structures from within, according to their particular being.”<sup>43</sup> For Gunton, this is power as freedom, powerful enough to conform itself to the needs of the object for its own sake and that of the Creator.<sup>44</sup> The divine freedom and sovereignty are distinguished because God’s creative act arises out of love, from the love that God is eternally, and then that same love moving out of itself to make creatures which are valuable and good for their own sake.<sup>45</sup>

Connected with this point is Gunton’s discussion of the divine attributes of impassibility and immutability. Divine impassibility does not preclude divine suffering, but it precludes what Gunton perceives as divine passivity in the event of the Cross.<sup>46</sup> So whilst Gunton affirms that the Father does suffer the giving up, the sacrifice of his Son, this is voluntary suffering.<sup>47</sup> The Son also suffers, but even here the Son is not passive. The Cross is something achieved, it is “the Father’s relentless action in shaping history to his reconciling will.”<sup>48</sup> If this is not the case, then the cross is not a saving action of God, but is instead something that happens to him.<sup>49</sup> In the same way, to understand the divine self-limitation (kenosis) that occurs in the Incarnation we must turn to the divine immutability. What happens in Christ must be seen in terms of the divine faithfulness and trustworthiness. If the Incarnation and in particular the event of the Cross, are seen as limitations or impositions upon the divine being, then as Irenaeus pointed out, these are themselves to be seen as

---

<sup>42</sup> Ibid. 18

<sup>43</sup> Ibid. 18-19

<sup>44</sup> Ibid. 18-19. The kenosis involved in the Incarnation is that represented in Phil 2: 6-11, rather than a more generalised limitation of divine being, omniscience or omnipotence.

<sup>45</sup> Ibid. 55-56

<sup>46</sup> Ibid. 110

<sup>47</sup> Ibid. 110

<sup>48</sup> Ibid. 189. C.f. Ibid. 110 and AAB, 126. The Son’s suffering is where “he *actively allowed himself* to be passively subject to the principalities and powers, but only as the mediator of the Father’s act, indeed, as his own sovereign act also.” (Ibid. 128. My italics)

<sup>49</sup> Ibid. 88

divine.<sup>50</sup> Where this is the case, the human flesh of Christ, or those human historical events that led up to the Crucifixion lose their creaturely reality.

(v) Our understanding of divine action-in-relation must maintain a concept of prevenience and avoid a competitive co-ordination of divine and creaturely reality. This is impossible for Deism and Pantheism, because “[i]n the former there are no longer any *causes* and in the latter any *secondary* causes.”<sup>51</sup> For Pantheism, secondary causes are at best “opportunities and passive instruments for the workings of God.”<sup>52</sup> For Deism, the primary cause is restricted entirely to the act of creation, and “totally excluded in the case of the “willing” (*velle*) and the doing (*facere*)”.<sup>53</sup> The solution is to argue that, just as the God-world relationship does not divide up reality between God and the world, so activity is not divided up between God and creaturely causality. Therefore “the same effect is totally the effect of the primary cause as well as totally the effect of the proximate cause.”<sup>54</sup> There is only creaturely reality and causality because of the prevenience of divine action-in-relation. Gunton, however, is unhappy with the language of primary and secondary causality. He acknowledges that the concept is intended to express the reality and efficacy of creaturely action, and so to avoid the perception of providential divine action as necessitarian. In other words, its function is to avoid the assumption that the only reality and action is divine. However, Gunton seems to feel that secondary causation is symptomatic of a loss of mediation within the concept of divine action. For him, it reveals an underlying competitive understanding; therefore it can be too strong and so deistic, or too weak, and so pantheistic.<sup>55</sup> This is of course a competitive co-ordination of the action of God and the world. This is not the case if we focus on the prevenience of divine action-in-relation as the two hands of God. In and through divine action-in-relation, the world is granted space for its own activity, the space between God and the world being bridged by the two hands of God.

<sup>50</sup> CAC, 87, n15. For more on the trinitarian structuring of divine immutability in Gunton’s thought, see ‘Trinity and Trustworthiness’, 281-2

<sup>51</sup> Bavinck, *In the Beginning*, 253

<sup>52</sup> Ibid. 253

<sup>53</sup> Ibid. 254

<sup>54</sup> Ibid. 255

<sup>55</sup> Gunton, ‘The End of Causality?’, 74, n36

(vi) Divine action-in-relation constantly enables and supports creaturely action, but it also brings the world towards its eschatological perfection. Therefore, we must be open to the possibility of divine action occasionally supervening on lawlike creaturely action in order to make provision for the ultimate destiny of things, and some of these will be miracles.<sup>56</sup> Nonetheless, Gunton is adamant that miracles in particular are not to be understood as interventionist. To make this point, Gunton relies on three related ideas. The first of these is the prevenience of divine action-in-relation. All patterns of creaturely energy flow from the giving of divine energy, and so “who is to rule out surges of energy which anticipate the eschatological perfection of the creation in a way which usual patterns of causality cannot achieve?”<sup>57</sup> The second principle is to see all divine action-in-relation, including miracles, in a perfecting role. This enables the world to be what it was created to be, and so *realising the creator’s purposes in advance*.<sup>58</sup> Third and finally, we must see creaturely action and reality from its own eschatological perspective, because this reinterprets how we define the normal functioning of the world. A miracle is a form of compelling, because it is an anticipatory perfection of the world, but “it takes place in order to overcome creation’s bondage, not to force its normal reality out of place.”<sup>59</sup> Only evil is violated on such an understanding. This is why Providence is to be understood as maintenance *and* redirecting.<sup>60</sup>

---

<sup>56</sup> TCF, 34

<sup>57</sup> Ibid. 35

<sup>58</sup> Ibid. 36. C.f. Jenson, *Systematic Theology*, ii, 45 and R. J. Berry, ‘Divine Action: Expected and Unexpected’, *Zygon*, 37:3 (2002), 741-750, (citation, 746)

<sup>59</sup> TCF, 35

<sup>60</sup> Ibid. 35. We might also briefly note that there is a relevant issue within the science-theology interface that also touches upon this issue. There has been a recent trend towards reinterpreting the nature of physical laws as they are interpreted by the natural sciences, to take account of the nature and reality of divine action. Briefly, as William P. Alston points out, to argue that divine action is an intervention into a lawlike natural process, is to assume that a scientific description of the underlying law prescribes unqualifiedly sufficient conditions for the outcome of such a law. (William P. Alston, ‘Divine Action, Human Freedom, and the Laws of Nature’, in *QCLN*, 185-206, (citation, 189). C.f. William R. Stoeger, S.J., ‘Contemporary Physics and the Ontological Status of the Laws of Nature’, in *QCLN*, 207-31 and Gregory R. Peterson, ‘God, Determinism, and Action: Perspectives from Physics’, *Zygon*, 35:4 (2000), 881-890) However, a scientific description of a natural law, actually describes “the outcome of certain conditions *in the absence of any relevant factors other than those specified in the law*.” (Alston, ‘Divine Action’, 190) This equates to the description of a law actually making provision for outside forces unanticipated by a law, which could include divine action. In other words, because laws are *descriptive*, they cannot *proscribe* the possibility of divine action which is not internal to the system described through a law. (Ibid. 190) For a much earlier and simpler version of this argument, see Asa Gray, *Natural Science and Religion* (New York: Charles Scribner’s Sons, 1880), 95. Gray actually anticipates one of the central common assumptions at the interface, namely

(vii) Gunton is trying to find a balance within the doctrine of Providence that “allows for both the orderedness and even determination of things ‘from above’ and their granting of a proper reality which enables themselves to be truly themselves.”<sup>61</sup> Using a concept from John Ireland, Gunton finds an analogy to this relationship in that of a poet to his or her own poetry or a composer’s to a piece of music.<sup>62</sup> Therefore, the kind of model we require is that of playwright or poet, because “a great playwright will ‘create’ characters which then to an extent create themselves. They take on their own life within the imagination of the author.”<sup>63</sup> Moreover, they do it *in the present tense*. Gunton also finds this analogy conducive to describing the divine awareness of future events. This is to be understood in the sense of a poet holding simultaneously in his mind the temporally structured poem which he has been presented with by the muse. In this way we may still speak of the world throughout its history being simultaneously present to God, without resorting to the additional motif of divine atemporality.<sup>64</sup>

(viii) One of the most difficult aspects of a discussion of divine action, is that of the divine awareness or otherwise of future events. The main difficulty here is that of divine foreknowledge and creaturely freedom, in that the former is difficult to dissociate from the notion of determinism. The image that the idea produces is that of an all seeing eye, looking over all things from above. This is a far cry from the suggested closeness and mediation of the two hands of God.<sup>65</sup> However, and this is a very revealing comment, for Gunton some such scheme cannot be avoided if we are not to read temporality directly back into God, which as we have already seen is unacceptable.<sup>66</sup> How then do we avoid determinism if we are to maintain a sense of the divine omniscience? For Gunton, the solution lies in emphasising once again the purposive nature of Providence. In other words, “we should consider providence not

---

the seeming incompatibility of intervening/sovereign divine action and the second law of thermodynamics. (Ibid. 96)

<sup>61</sup> TTC, 191

<sup>62</sup> Ibid. 182. This is also a very common metaphor or model at the science-theology interface, as we shall see in Section 3.

<sup>63</sup> Ibid. 192

<sup>64</sup> Ibid. 182

<sup>65</sup> Ibid. 191

<sup>66</sup> Ibid. 191

in its meaning of *seeing in advance* but as *providing for*.”<sup>67</sup> This of course finds parallels in Gunton’s treatment of Election, in which he attempts to get away from the idea of a divine determinism by focusing on the *present tense* nature of electing divine action.<sup>68</sup>

(ix) One alternative is to accept Gunton’s point on the affinity between the concept of foreknowledge and determinism, and to advocate a divine temporality accordingly. For J. R. Lucas, only divine temporality can guarantee human freedom. The alternative is a “theological determinism”, wherein divine omniscience is understood to involve a complete and infallible knowledge inclusive of future events.<sup>69</sup> This is incompatible with human freedom<sup>70</sup>, because if God knows what we are going to do, we cannot help doing it.<sup>71</sup> This is not to be coupled necessarily with a divine predetermination of all events, because the concept of foreknowledge is enough to show that our actions are necessitated.<sup>72</sup> Therefore, for the divine temporality, as with creaturely temporality, only the present instant is present to God, and therefore God’s omniscience excludes future contingents “which are not yet there, so to speak, to be known”.<sup>73</sup> God knows all that can be known of temporal reality.<sup>74</sup> To this end, Lucas is concerned to show that human freedom may be causal in what happens to us, but it is also a question of favourable circumstances.<sup>75</sup> This means we can talk causally of human decisiveness whilst also ascribing other causes to these actions, including God.<sup>76</sup>

---

<sup>67</sup> Ibid. 191

<sup>68</sup> TCF, 30. See note 22 of this chapter. Gunton himself makes this connection explicitly when he argues that God’s actions in history are *involvements with particular individuals*. (Ibid. 29)

<sup>69</sup> J. R. Lucas, *The Freedom of the Will* (Oxford: Caledonia Press, 1970), 65

<sup>70</sup> Ibid. 74

<sup>71</sup> J. R. Lucas, *The Future: An Essay on God, Temporality and Truth* (Oxford: Basil Blackwell, 1989), 30. C.f. idem. ‘The Temporality of God’, in *QCLN*, 235-246, (citation, 236)

<sup>72</sup> Lucas, *The Future*, 33. C.f. Ibid. 34

<sup>73</sup> Lucas, ‘The Temporality of God’, 239. C.f. *The Future*, 217

<sup>74</sup> Lucas, *The Future*, 220. This qualifier is important, because what can be known is not the same as what there is to be known, even with a frame of temporal reference that covers the whole of created reality at a given instant. (Lucas, ‘The Temporality of God’, 239)

<sup>75</sup> J. R. Lucas, *Freedom and Grace: Essays* (London: SPCK, 1976), 6

<sup>76</sup> Ibid. 7

Lucas claims no difficulty whatsoever in ascribing to God the kind of divine action which we might call General Providence – i.e. the creation of a rational order, the sending of rain, etc. God must certainly be seen to be active in his creation.<sup>77</sup> Nonetheless, although Lucas does not *rule out* divine intervention and episodes of divine guidance, there is certainly the tendency to see such activity as *almost unnecessary*.<sup>78</sup> This would again appear to be under the rubric of General Providence. Lucas can thus say that we can get a manifestation of divine goodness *without* a detailed divine ordering of the situation, because of the innate properties of the created order.<sup>79</sup> Lucas also argues that God limits his own omnipotence and omniscience “in order that his creatures may have *room* to make their own decisions”.<sup>80</sup> Thus, regardless of the question of whether God as a temporal being *can* have complete foreknowledge (which might not be regarded as a self-limitation, but as a necessary one<sup>81</sup>), we have the *moral* argument for a limited divine knowledge. God has only “fallible belief”<sup>82</sup> about our actions, and so divine action must always be responsive to free creaturely action.<sup>83</sup> Moreover, there is a moral argument for a limited divine omnipotence; genuine human freedom entails that God restrains himself from a detailed ordering of events.<sup>84</sup> The divine action is the action of “a deeply compromised God.”<sup>85</sup> As Lucas puts it, in creating God sacrifices the absolute supremacy of the divine being; “To create is to abrogate.”<sup>86</sup>

The strength of Lucas’ position on divine temporality is identical with that of Paul Helm on divine atemporality. Both of them make an explicit claim about the divine (a)temporality, and so can make a direct connection with the divine perception of temporal events. Lucas’ position, however, does make divine and creaturely freedom contrastive. With this in mind, it is very tempting to argue that Lucas’ discussion of divine temporality is symptomatic of this contrastive approach. A temporal

---

<sup>77</sup> Ibid. 9

<sup>78</sup> Lucas, *The Future*, 231

<sup>79</sup> Ibid. 230

<sup>80</sup> Lucas, *Freedom and Grace*, 37. My italics

<sup>81</sup> e.g. Lucas, *The Future*, 226

<sup>82</sup> Ibid. 222

<sup>83</sup> Divine action can only be responsive if God is temporal. (Lucas, ‘The Temporality of God’, 236)

<sup>84</sup> Ibid. 229

<sup>85</sup> Lucas, *Freedom and Grace*, 40

<sup>86</sup> Ibid. 40



interpretation of divine eternity assumes that the divine eternity and creaturely temporality *are on the same ontological plane*, just as with a more explicitly deistic scheme.<sup>87</sup> Gunton's approach is more traditional, in that he affirms creaturely freedom in and through divine freedom, and so God and the creature are neither identified nor opposed. The established freedom of the creature "is based upon that partnership which God has instituted."<sup>88</sup> The problem with Lucas' position and similar ones is quite simple;

The sad upshot is that those who laud man's autonomy cannot do justice to God's freedom, to man's condition and need, to God's provision in Christ.<sup>89</sup>

To argue for divine temporality is to argue for too close a connection between time and eternity, and as a consequence to affirm a competitive understanding of the God-world relationship.

(x) Gunton's position on the issue of divine eternity does not advocate an identification or contrast of eternity and temporality, nor does it devise an understanding of the divine perception of time that is derived from one of these positions. What Gunton's model cannot tell us is whether Gunton wishes to assert that the future exists already *for us*. In other words, do we advocate *space-time ontological heterogeneity*, and claim that only the present exists, or do we advocate *space-time ontological homogeneity*, and claim that the past and present actually exist, although we cannot perceive them? The evidence in Gunton's work is scanty, but he seems to affirm the former. We argue in this way because of his connection between foreknowledge and determinism;

---

<sup>87</sup> Indeed for Irenaeus, divine omniscience must be maintained, because anything hidden from God would represent a realm which is independent of Him, and therefore the realm of a second God. (Peter Robert Forster, 'God and the World in Saint Irenaeus: Theological Reflections' (PhD Thesis, University of Edinburgh, 1986), 44, quoting *Adversus Haereses*, IV.19.3). This is especially the case with regard to foreknowledge (Ibid.)

<sup>88</sup> Weber, *Foundations of Dogmatics*, 519

<sup>89</sup> Sell, 'Autonomy, Immanence and the Loss of Authority', 124

The advantage of a conception of providence centring on act rather than knowledge is that an action can be understood to leave room for the free 'space' between one thing and another. There are many ways of making something happen without forcing it to do so.<sup>90</sup>

If this is the case, then Gunton is arguing for a divine perception of time that is *in contrast to the actual nature of creaturely temporality*. However, this is not problematic when we grasp that although God and creaturely temporality are neither to be contrasted nor conflated, God is not within space-time. This seems to be a point often overlooked at the science-theology interface, whereupon the divine perception of space-time must be in accord with its actual physical nature. On such an understanding, the divine perception of time as discussed by Gunton is more akin to a 'block universe' or atemporal view of the created order. However, if the world is understood to be temporal, and the divine knowledge is truthful knowledge of the world, then "the divine knowledge must itself be atemporal."<sup>91</sup> It is common enough in the science – theology literature to find a temporal view of creation linked to a divine self-limitation upon foreknowledge. This is certainly the case for John Polkinghorne, who can argue typically in this fashion;

The future is brought into being as time evolves and it would seem that God, knowing all that can be known, would nevertheless not yet know the unformed future.<sup>92</sup>

Although this argument carefully avoids contrasting creaturely temporality with divine eternity, it does seem to imply some form of identification, because it is otherwise difficult to know why the divine perception must be restricted to current physical understandings of temporality. Although Gunton only leaves us with pointers towards his own understanding, it is clear that this tendency towards identification is eliminated.

---

<sup>90</sup> TTC, 183-184

<sup>91</sup> John Polkinghorne, 'Natural Science, Temporality and Divine Action', *Theology Today*, 55 (1998), 329-343, (citation, 333)

<sup>92</sup> Ibid. 342

(xi) Our tentative interpretation of Gunton's understanding of the temporal process is in accord with the notion of contingency; the non-necessity of given patterns of world events. As such, we have "divine action which enables something to move from an uncompleted or unsatisfactory present to a completion that is destined, but not fully determined, in advance."<sup>93</sup> This of course correlates with the nature of divine action as it is revealed in the Incarnation.<sup>94</sup> Gunton wants to argue that the work of the Son and the Spirit in the person and life of Jesus demonstrates the existence of true contingency but not chance within the created order. He explicitly and unsurprisingly argues that there is nothing outside the divine ordering of the world, but that this does not equate with determinism. Rather, the action of the Spirit determines what kind of order there is or can be, because the Spirit's action is to enable things to be themselves.<sup>95</sup> We must think in terms of "the Son as the giver of structure, and the Holy Spirit as the one who gives the world space to become within but not apart from that structuring."<sup>96</sup> The creature can then find the 'space' to be a genuine, contingent, creature within and not apart from this divine economy.

### *(C) Critique*

(i) Gunton's tendency towards a rather peremptory dismissal of opposing positions is also problematic within his doctrine of Providence, and in particular within his discussion of the issue of secondary causation. His concern here, as ever, is to ensure that divine and creaturely realities are not treated competitively. This occurs when the God-world relationship, and as a consequence divine action, is perceived to be unmediated. Unfortunately, Gunton does not discuss in any detail who might be guilty of this, and his solution is equally hurried. To make more sense of this, we can very briefly address some criticisms made by Barth of the traditional doctrine of Providence, and also some of his constructive alternatives.

---

<sup>93</sup> TTC, 184

<sup>94</sup> Ibid. 184

<sup>95</sup> Ibid. 192

<sup>96</sup> Ibid. 192

For Barth, the difficulty for the doctrine of Providence does not lie in the usage of the language of first and second causes, but in the wider tendency to treat the doctrine in isolation from other aspects of theology;

In its whole doctrine of providence it spoke abstractly not only of the general control of God over and with the creature, but of the control of a general and in some sense neutral and featureless God, an Absolute. It spoke abstractly of a neutral and featureless creature. It separated between world history and salvation history.<sup>97</sup>

In other words, the doctrine lacks specifically Christian features, and it is in discussing these that Barth can perhaps shed some light on Gunton's concerns.<sup>98</sup> Barth argues that if the language of first and second cause is to be appropriate, then it must avoid four great dangers, all of which it appears have to do with some form of *equalising* of these causes. First, neither must be identified with natural causation. Second, neither must be seen as analysable 'things' to be manipulated.<sup>99</sup> Third, 'cause' must not be understood as a master-concept or common denominator applicable to both God and creature. The divine and creaturely are utterly unlike as acting subjects.<sup>100</sup> Therefore there can be no *analogia causae*.<sup>101</sup> Fourth, and this is the consequence of these other three points, theology must not become a philosophy in its discussion of 'cause'. Barth's alternative to these brings us to the heart of the current problem; if we are to use the concept of cause at all, "its content and interpretation must be determined by the fact that what it describes is the operation of the Father of Jesus Christ in relation to that of the creature."<sup>102</sup> Therefore, concurrence must be seen in the wider light of the covenant of grace fulfilled in Christ.<sup>103</sup> Gunton argues that the concept of secondary causation lacked a notion of mediation, but for Barth it is the more general issue of lacking a notion of the mediator, Jesus Christ.

---

<sup>97</sup> Barth, *CD*, III/1, 100

<sup>98</sup> For Gunton's brief references to Barth on this issue, see Gunton, 'The Triune God and the Freedom of the Creature', 56-57

<sup>99</sup> Barth, *CD*, III/1, 101

<sup>100</sup> *Ibid.* 102. Although Barth is willing to accept an *analogia operationis* in the manner in which we can describe divine and creaturely actions. (*Ibid.*)

<sup>101</sup> *Ibid.* 103

<sup>102</sup> *Ibid.* 104

<sup>103</sup> *Ibid.* 104

(ii) Gunton's understanding of divine action in Process Theology has been criticised by David A. Pailin. He argues that Gunton's interpretation of divine action, based as it is on a treatment of the thought of Charles Hartshorne, has fundamentally misinterpreted Hartshorne's views on this subject.<sup>104</sup> What makes this critique important is not so much what it tells us about Gunton's thought, but what it tells us about some of the tensions within Process Theology itself. Essentially, Pailin is arguing that we must account for the abstract nature of God and the particular concrete instantiation of some possible subset of this abstract nature. In Process Theology "the nature of the divine existence does not entail that the divine actuality must have the same formal properties."<sup>105</sup> As a consequence of this "some actuality must exemplify God's existence in some appropriate form."<sup>106</sup> This means that God is in principle omnipotent, unchanging, etc, in practice the actualisation of the divine reality "is relative and changing according to what is the appropriate form of the divine for the present state of the processes of reality."<sup>107</sup> God is therefore both active and passive, and so on. Gunton has failed to take into account this dipolar theism, and so assumes that the divine passivity, (i.e. the concretion of the abstract nature of God which is both active and passive), is all there is to be said on the subject of divine action.<sup>108</sup> However, in Gunton's defence, Pailin then goes on to argue that the concrete passivity of the divine being is not a particular instantiation of a divine being which could be active. It follows from the logic of Pailin's argument that there is no principle of unexercised, divine control! Norman Pittenger makes it clear that in Process thought God "*cannot*, literally cannot, violate the freedom of the world, although he can and does mould the world by the lure and enticement of his love to the true and right fulfillment of its possibilities."<sup>109</sup> The attenuated nature of divine action in Process Thought is therefore not merely a particular instantiation of an abstract nature that encompasses both activity and passivity. It is endemic, if we can use this term non-pejoratively, to Process Thought as a whole.

---

<sup>104</sup> David A. Pailin, *God and the Processes of Reality: Foundations of a Credible Theism* (London/New York: Routledge, 1989), 90ff

<sup>105</sup> Ibid. 69

<sup>106</sup> Ibid. 69

<sup>107</sup> Ibid. 73

<sup>108</sup> Ibid. 91

<sup>109</sup> Norman Pittenger 'Is God Responsible for Evil?', *Modern Churchman*, 24:3-4 (1981), 183-186, (citation, 88)

(iii) In the previous chapter we mentioned Molnar's critique of Gunton's Christology, and noted his concerns for a real imbalance between Christology and Pneumatology. Although we did not find his arguments persuasive with regard to Christology, the same cannot be said for Gunton's wider conception of divine action, and so we need to address this difficulty. Gunton's insistence on distinguishing roles for the two hands of God has the benefit of preventing the roles of the Son and Spirit from becoming merely arbitrary and potentially modalistic attributions, but this becomes a double-edged sword when this can be (incorrectly, but understandably) interpreted as *divorcing* these roles. As we have already noted, more effort than is perhaps desired is required of a reader to grasp clearly that in his Christology Gunton never divorces the action of the Word and the Spirit, and that he does not over-privilege pneumatological action. This becomes even more pressing in other aspects of his theology. For Gunton, revelation is a triune act, a function of the whole divine economy.<sup>110</sup> This is because it is a result of God making himself known through a personal relationship with certain individuals at certain times, and also an enabling of certain authors to describe these events in such a way that their writings (Scripture) can become revelation for future generations.<sup>111</sup> As such, Christ is uniquely revelatory of God's action-in-relation; he *is* revelation.<sup>112</sup> Scripture, on the other hand, is *made to be revelatory*. This requires a genuinely eschatological pneumatological action. For Gunton, the traditional understanding of the role of the Spirit in revelation is simply to make revelation (whether as Christ or mediated through Scripture) *present*. The Spirit becomes "the agent of the historicity of revelation."<sup>113</sup> Instead, if we are to properly appreciate the eschatological action of the Spirit, we need to understand revelation to be the result of the Spirit's perfecting action.<sup>114</sup> This of course refers not only to the enabling of the authors of Scripture to actually produce revelatory material, but also to the enabling of Scripture to *be* revelatory in the present. Now we can hardly accuse Gunton's position of being insufficiently pneumatological, but is it sufficiently christological? The aim of Gunton's position appears to be to once again affirm createdness; in this case that of

---

<sup>110</sup> BTR, 112

<sup>111</sup> TCF, 53

<sup>112</sup> Ibid. 53 and BTR, 112

<sup>113</sup> BTR, 118

<sup>114</sup> Ibid. 120 and TCF, 53



Scripture, and perhaps the humanity of Christ, such that both can be revelatory and yet still creatures. However, Gunton's proposal does not distinguish between making these *revelatory* and making them *revelation*. The latter is the case only through the action-in-relation of the Word of God.

In response we might point to recent work by Douglas Farrow where he comes to a number of the same conclusions as Gunton, but carefully demonstrates how the doctrine of the Ascension is a necessary cornerstone for these arguments. Farrow argues that unless we acknowledge the disturbing absence of Christ which the Ascension represents then we cannot but fail to do justice to the person of Jesus and the work of the Holy Spirit. The first difficulty comes from failing to perceive the change that the Ascension represents for Christ. If we assume, with Barth, that Christ's lordship is established in the Resurrection rather than in the Ascension, then there is a real danger of Docetism.<sup>115</sup> To make sense of the Ascension of Christ to the right hand of the Father, we need a pneumatological emphasis.<sup>116</sup> To understand present tense divine action-in-relation, we must look to the Holy Spirit "*who does not in fact present himself but the absent Jesus...* This is the Spirit who through Word and sacrament also unites us to the absent Jesus, so that it is we who are grasped or seized, \_\_\_\_\_.<sup>117</sup>

### Conclusion

This is possibly the most difficult chapter in our treatment of Gunton's theology. We have had to massively compact his Ecclesiology, and his doctrine of Providence has required even more reconstruction than the details of his view of the Last Things. Nonetheless, this is not to say that Gunton is incoherent or inconsistent. It is rather the fact that his Ecclesiology, like his doctrine of creation, is scattered over a large area of his corpus, and his doctrine of Providence only receives extended treatment

<sup>115</sup> Farrow, *Ascension and Ecclesia*, 248. As Farrow points out, Gunton has criticised Barth on precisely this point, and provides references for these criticisms.

<sup>116</sup> Ibid. 249

<sup>117</sup> Ibid. My italics

in *The Triune Creator* and *The Christian Faith*. His Ecclesiology is perhaps most interesting for tracing the influence of the projective view of creation, and also his strong (and sometimes overly so) Pneumatology. His views on the nature of worship and the sacraments are particularly significant due to his understanding of the nature of human culture. Gunton's doctrine of Providence makes for rather difficult and technical reading, especially as he explicitly or implicitly engages with philosophical issues. However, his work here is never abstract in the way which Barth rightly criticised certain formulations of this doctrine. This comes out loud and clear in his strongly christological treatment of divine sovereignty and passibility. This doctrine also makes for occasionally frustrating reading as we engage with the questions that Gunton refuses to give concrete answers to, such as the temporal or otherwise nature of the divine eternity. Nonetheless, for the present author at least, this *modus operandi* does have the peculiar strength of giving Gunton's own treatment a flexibility we do not find accompanying more ready answers.

The weaknesses here, apart from the need to reconstruct in large measure Gunton's own views on certain issues, stem in part from the bugbears of his theology; Pneumatology and his sometimes offhand treatment of alternative views. The former comes out loud and clear in his understanding of the Church; the Spirit seems to be almost totally responsible for present tense divine action in this respect. Now, Gunton does make it clear that christological and pneumatological action are involved, but the details of the action of the Son are scanty, except to argue that the Church is formed around and by the Word. This is the same pattern we found in his treatment of revelation; the Spirit does indeed unite us to Christ, but his theology on the work of Christ in this and as a result of this need reconstruction. Gunton's occasionally peremptory manner also comes out in this chapter; why for instance reject the concept of secondary causality, when it can be interpreted as meaning much the same as his own theology? Furthermore, as much as his theology of Election is a welcome and constructive treatment of a difficult issue, the whole tenor of his argument does seem to imply that his is the only alternative he recognises (or is even aware of) to Double Predestination.

**Summary: Createdness in the Theology of Colin E. Gunton**

The point of our exposition and critique of Gunton's theology is to derive a set of inter-related theological motifs that are essential to the concept of the createdness of the natural order. As we pointed out at the beginning, we are not suggesting that all of these are somehow unique to Gunton's thought, but rather that his characteristic development of some areas of theology (such as Irenaeus' idea of the creation as a project) and the manner in which motifs are related to one another, is particularly suited to our aims. In this summary we need to briefly identify these motifs, how they relate to one another, and to determine which need further work in the final section of this thesis if we are to be able to use them in the remainder of this thesis.

(i) The createdness or intrinsic reality of the natural order is ultimately dependent on the nature of God. Only the God revealed in the Scriptures as the triune Creator can create, redeem and perfect the natural order. Therefore, at the heart of Gunton's scheme is the doctrine of the Trinity, understood as *being-as-communion*. Within this Gunton argues that the personal relationships between the divine Persons entails a *giving of space* to one another. From this in turn develops the motifs of the *personal relationship* between God and the world and the *personal space* this entails. This understanding of space is a description of the otherness between God and the world, and is as such the basis of the intrinsic reality or createdness of the natural order. This is only to be affirmed in and through an *ongoing* personal relationship between God and the world. We need therefore to avoid *Pantheism*, understood directly or *reflexively* via *Deism*. Moreover, although the concept of space is important, we must avoid seeing the God-world relationship as a *static co-ordination* of two opposed entities. Therefore, *transcendence and immanence* must not be understood to be *competitive*. Gunton's solution is to see these as dynamic, and so to reinterpret them as *otherness and relation*. Note the importance of divine freedom here; *God's transcendent freedom guarantees the space for creaturely freedom*. We need also to do justice to Gunton's problematic but ultimately helpful distinction between

transcendence and immanence for the Son and Spirit. This is helpful not as a rigorous distinction between the relationships of the Son and Spirit with the natural order, but rather as a way of preventing immanence from becoming a general principle. Immanence is most associated with Christ, whose presence in the natural order is divinely initiated, and the Spirit is to be predominantly associated with the otherness of God acting towards the natural order. Therefore, Gunton's discussion of divine action is framed within the motif of *action-in-relation*. How do we maintain a dynamic and personal understanding of the God-world relationship whilst maintaining an adequate conception of personal space? The answer lies in two motifs; the *mediated nature* of the God-world relationship and the model of *the two hands of God*. This relationship is not pantheistic, because there is space between God and the world, but neither does this space lapse into deistic separation, because it is mediated by the two hands of God, who are themselves truly God. Without a mediated view of the God-world relationship we cannot affirm createdness, because either the world will be God or some aspect of the natural order (whether it be genes or evolution or Newtonian space and time) will 'rise' to fill the void and effectively take on a mediatorial role. Finally, because underlying all we have said so far is the divine prevenience, we need to maintain an adequate conception of the divine freedom through *the doctrine of the Immanent Trinity*.

(ii) The connection between divine freedom and createdness is expressed most clearly in the doctrine of *creation out of nothing*. Because this is not to be understood in a deistic sense, Gunton sees this as the first tense in the God-world relationship, leading on to the doctrine of Providence (the ongoing dependence of the world upon God) and finally the eschatological perfection of the natural world. That brings us to the heart of Gunton's doctrine of creation; the world as a perfectible project. Although this has great implications for other aspects of Gunton's theology, the immediate consequence is to bolster our understanding of the reality of the created order by seeing it as *intrinsically purposive*. This is also secured through Gunton's careful discussion of creation as *an act of personal will*. Because there is an ongoing relationship through space and time between God and the world, this makes a claim

for the reality of certain creatures such as space and time. This intrinsic reality is at the heart of Gunton's deliberately apophatic treatment of time, where he disavows both an explicit identity and opposition between created temporality and divine eternity. Identity or opposition would both assume that eternity and temporality are contrastive and occupying the same ontological plane. In denying both of these, Gunton affirms the divine prevenience and the integrity of created time and space. He also refuses to conflate divine action-in-relation with those created events within space-time. As such, he refuses to identify evolution or cosmological eschatology with the divine perfecting of the natural order. As we move on to discuss the nature of the created order itself, it becomes obvious that Gunton says very little about the specific nature of created reality, except insofar as the transcendentals echo the divine nature. There is however, one particular point of contact here with science. This is the question of attempting to explain a relational ontology in scientific terms. This may seem to hint at a natural theology, but it is rather to do with the extent to which we can locate ontology within entities in spacetime, within spacetime relations or opt for a different metaphysic altogether such as Process thought. Gunton advocates the first of these, and it is our contention that this view will be most conducive to our work at the interface, insofar as we will argue that only such a view can guarantee the reality and activity of created particulars. As Fermer rightly pointed out, we must make a distinction between different types of created particulars, and the most profound distinction is between the personal and non-personal aspects of the created order. However, all creatures share certain characteristics, because to be a creature means to be *in a relationship shaped by the Son and Spirit*. All creatures, as relational entities, exist in and through *vertical and horizontal relationalities*, and it is the variances within these that allow us to discuss the characteristics of non-personal and personal particulars. Hence we find *the distinction between freedom and contingency*. All creatures are contingent, which because of the connection between contingency and createdness, means that they are intrinsically real and also free from false determinism. However, there is a unique pattern (*grace*) to the divine action-in-relation (i.e. vertical relationality) with regard to the human creature.

(iii) Within Gunton's scheme, sin represents a disruption of the true eschatology of the project of creation. The atoning life of Christ is understood on a recapitulation model as a reinaugurating and reorientating of the project. In other words, the Atonement involves *the whole life of Christ*, empowered by the Spirit as the personal transcendent other. Hence, we find a close and consistent relationship between creation and redemption in Gunton's theology. Importantly, Gunton insists that because Christ is the mediator of Creation incarnate, then *the Incarnation is non-interventionist*. In fact, for Gunton there would have been an Incarnation without the presence of sin within the world, because it represents *the fulfilment of the natural order*. The non-interventionist nature of the Incarnation is reflected in the maintenance of a modified view of divine *impassibility* and *immutability*. Here, kenosis and divine suffering can be accepted, but as something actively and sovereignly achieved by God. Hence, Gunton insists that the Incarnation must not be understood as an evolutionary product, in the same way that the final destiny of the natural order cannot be understood as the result of cosmic eschatology, whether through evolution or entropy. Gunton's Pneumatology can be summarised through the two motifs of *perfection* and *particularisation*. The Spirit perfects and renders the God-world relationship as dynamic by perfecting the innertrinitarian life of love and by moving this love outwards towards the created other. In both instances, this perfection arises through a particularisation, whether of the innertrinitarian relationships, or a particularisation and delimiting of the natural order (i.e. relation-in-otherness) within its own spatiotemporal parameters.

(iv) Our final set of motifs stem from Gunton's doctrines of Ecclesiology and Providence. From both we derive greater detail in particular on his understanding of divine action. First, let us reiterate that divine action-in-relation, whether christological or pneumatological, is orientated towards the perfecting of the natural order. Moreover, this perfecting is an aspect of createdness and so that which contributes to perfection does not diminish but in fact fulfils createdness. As such, the divine action that enables anticipatory fulfilments of the natural order still respects createdness. This is true even when the natural order achieves something or



exists in a manner of which it is incapable unaided. This of course refers to the existence of a redeemed human community, inspired human culture (and the consequent enabling of the non-human creation to praise the Creator) and ultimately miracles. Ecclesiology is then the study of Providence of one specific form or one specific locus. It is trinitarian, present tense, orientated towards the perfection of the natural order and the guarantee of createdness.

Gunton's view of Ecclesiology therefore contributes to our picture of Gunton's technical discussions of Providence. First, we have *the qualified distinction between the act of creation and Providence*. Hence 'continuous creation' is undesirable in Gunton's scheme. Gunton's model of the playwright or poet, for understanding divine action is similar to many motifs at the science–theology interface. For Gunton, the essence of the model is that it allows creaturely freedom, whilst allowing *the simultaneous presence of the whole created order to God*. This is a useful motif in that it avoids a kenotic divine self-limitation in terms of knowledge of future events, and does not require us to affirm a 'block universe' view of space-time. This motif also tackles the determinism usually associated with it, by highlighting pneumatological divine action, which *enables* the created order to achieve a destined completion.

In Gunton's thought, all divine action-in-relation is prevenient and yet guarantees the integrity of the created order. Hence, Providence (including Election) is not to be equated with determinism, because rather than mere foreknowledge, Providence invites the question of what divine action-in-relation is *for*, and the answer is always the perfection of the created order rather than a destructive determinism. This is why miracles are not a threat to createdness in Gunton's thought<sup>1</sup> The 'space' in which the world exists is not a vacuum – it is a result of ongoing divine action-in-relation. In principle, then, *all* divine action, *miracles included*, supports rather than negates created integrity. Moreover, as miracles are exemplars of action-in-relation, they are *orientated towards the perfecting of the natural order*, which as we have said is

---

<sup>1</sup> As such, miracles do not threaten the rational contingency on which science depends.

integral to the identity of the created order and to its restoration. All divine action—in-relation is to be understood in terms of *trinitarian mediation*. The Son is the giver of structure, and the Spirit enables the created order to have space to be within that structuring. Or as Gunton also puts it *christological action institutes and pneumatological action constitutes or particularises*.

Not all of these motifs will be consistently applicable in the rest of this thesis, and some will be of overwhelming significance. Moreover, there are some conspicuous lacunae within the grammar as it stands, where Gunton does not provide the kind of answers that we require. For example, if his understanding of christological action is almost solely past tense, then how are we to maintain what we have learnt from Gunton, and yet repair this defect? How do we discuss present tense christological action? Furthermore, Gunton's position on the relationship of divine and created action is very thorough and helpful as far as it goes, but we require a more detailed position on the nature of the enabling of created action by the work of the two hands of God. Speaking more generally, how do we conceive of the 'space' or integrity of the natural order as a product of divine action-in-relation, as opposed to a panentheistic and ultimately pantheistic space? We must face all of these questions in the last section as we discuss the createdness of evolution.

## Section 2: Testing the Grammar of Createdness: Evolution in the Thought of Teilhard de Chardin

### Introduction: Teilhard's Evolutionary and Mystic Vision

(i) In the first section of this thesis we introduced the theology of Colin E. Gunton, in order to identify the rules and motifs within his theology that secure createdness as an integral aspect of his thought. A consideration of the 'ruled relations' between these provided us with our grammar of createdness. Now we can move on to test this grammar by examining the treatment of evolution in the theology of French Jesuit and Palaeontologist Pierre-Marie-Joseph Teilhard de Chardin. Using our grammar, we hope to demonstrate that Teilhard cannot maintain the createdness of evolution within his overall vision. Furthermore, and more precisely, we hope to demonstrate that this failure is due to infringements of the rules of our grammar. If we are able to identify the difficulties in Teilhard's theology, we will then be in a stronger position to analyse and critique modern science-theology interactions on the subject of evolution and to make our own contribution.

(ii) Teilhard's theology represents a significant and fascinating shift in methodology from that of Gunton. We have already pointed out that the Gunton corpus is extensive, and yet relatively consistent in its use of theological motifs. The Teilhard corpus is rather more extensive, written over a longer period of time and much more fluid in nature. Teilhard's expression can be frustratingly oblique, due to a mystical perspective and approach to theology itself. Moreover, it has been noted that Teilhard's work suffers due to a lack of scholarly critique and interaction during his lifetime, due to an extensive period of time spent as a palaeontologist in China and consequently in relative isolation from other theological perspectives.<sup>1</sup> This also adds

---

<sup>1</sup> John Habgood argues that Teilhard gives the impression of a sensitive and intelligent thinker, "forced to thrash around in the circle of his own ideas, without the benefit of serious criticism, and hence without making real contact with either the science or the theology he cared about so deeply." (John Habgood, Review of Pierre Teilhard de Chardin, *Man's Place in Nature*, in *Theology* 70/563

to a sense of inconsistency and variation in his thought. Consequently, his work is exhilarating and frustrating in equal measure, as evinced by the tremendous volume of material that has been and continues to be written on his thought. Our intention of course is not to contribute directly to this theological endeavour. Instead, our overall aim is to demonstrate the relevance of createdness for theological contributions to the science-theology interface, and within this wider goal, our treatment of Teilhard's theology serves as a test case for our grammar of createdness.

---

(1967), 231-2, (citation, 231-232) For details on why Teilhard was prompted to leave Paris for China see Abbé Paul Grenet, *Teilhard de Chardin: The Man and His Theories* (tr. R. A. Rudorff) (London: Souvenir Press, 1965), 21-22, and Claude Cuénot, *Teilhard de Chardin: A Biographical Study* (tr. Vincent Colimer. Translation ed. René Hague) (London: Burns & Oates, 1965), Chs. 4 and 5.

## Chapter 5: The Nature of Evolution in the Thought of Teilhard de Chardin

### *Introduction*

Teilhard's perspective on evolution is important for our purposes, because of the intrinsic significance that he affords to the process. Whereas Gunton's few references to evolution see it as a relatively unimportant created entity, for Teilhard evolution is much more than a mere neo-Darwinist process. Evolution is much more than biology. It is an all-embracing phenomenon that applies throughout the cosmos and at all times. The cosmos as a whole is in a state of evolution, as are all elements within it, from a single quantum of energy to *Homo sapiens*. The process of evolution is evinced by greater arrangements of material complexity over time, ranging from non-living entities through to the human brain as the most complex empirically verifiable biological fruit of evolution. However, not only is the arrow of evolutionary history an arrow of increasing complexity, it is also an arrow of convergence. The evolutionary process, and those entities which are in the process of evolution, are converging on a summit or point, which is the apex of evolution. For Teilhard, it is *the return of Christ*, the *Parousia*, which is the culmination of the process. However, for Teilhard, this cannot be deduced from the scientific evidence. Therefore in this chapter we must concentrate on what *can* be deduced from a scientific investigation of evolutionary history. We will find that Teilhard can deduce the existence, and many of the properties, of the end-point of evolution (which he calls Omega Point) including some divine properties, but he does not go so far as to *identify* this evolutionary apex. In this chapter we make a threefold division of this vision of evolution, roughly past, present and future, in terms of matter, man and Omega.

*(A) The Evolution of Matter*

(i) If evolution is an all-embracing concept, and is applicable to all entities, then all such entities must have common properties in order to evolve. In turn these must be properties common to the most fundamental particles of matter itself. Matter has three such important properties; plurality, unity and energy. The first of these is the atomicity, or particulate nature of the universe.<sup>1</sup> The second common feature is the essential unity underlying this; a unity of similarity (such as the identical masses of atoms of the same elements), a unity of homogeneity whereby particles can only be identified through their sum set of interactions, and finally a collective unity in that there is a sphere beyond all of these centres which envelops them.<sup>2</sup> The third important aspect of matter is energy, which is indestructible and provides an essential foundation for all that derives from it;

From this point of view, the universe would find its stability and final unity  
at the end of its decomposition. It would be held together from below.<sup>3</sup>

However, as Teilhard goes on to discuss in greater depth, we must be aware that the universe and all that is within it is in fact held together *from above*, from the future apex of the evolutionary process. What we find therefore in an examination of the universe is *total matter*; the divisibility of the universe is in fact a misapprehension. Instead we have an indivisible totality, which at the opposite end of the spectrum of matter is concentrated in and as thought.<sup>4</sup> The universe is a whole “by reason of the unimpeachable wholeness of its whole, a *system*, a *totum* and a *quantum*: a system by its plurality, a totum by its unity, a quantum by its energy; all three within a boundless contour.”<sup>5</sup>

---

<sup>1</sup> PH, 44

<sup>2</sup> Ibid. 45-6. C.f. MD, 33 and LT, 32. In his early work, Teilhard also argued for a unity through the ether. (e.g. WW, 22)

<sup>3</sup> PH, 47

<sup>4</sup> Ibid. 47

<sup>5</sup> Ibid. 48. In total, Bruno de Solages detects six types of matter in Teilhard's scheme! (Bruno de Solages, *Teilhard de Chardin: Témoignage et Étude sur le Développement de la Pensée* (Toulouse: E. Privat, 1967), 284)



(ii) If we are to be able to perceive all matter to be in evolution, it is also important to incorporate a temporal perspective into our physics. A point in spacetime is a section through an indefinite number of temporal fibres, rather than a frozen portrait of particles.<sup>6</sup> The totality of the universe therefore reveals itself to be in *cosmogenesis*, and matter from the very earliest perspective has been in a state of genesis.<sup>7</sup> This means that the components of the universe are far from randomly organised; instead *"they form a natural series in which their order of appearance coincides essentially with their order of complication."*<sup>8</sup> This has occurred through two processes; a primordial granulation which refers to the formation of atoms (i.e. matter formed from the energetic substratum), and after this a process of growing complexity.<sup>9</sup> This can of course be understood in terms of thermodynamics, or the laws of the conservation and dissipation of energy.<sup>10</sup> In contemporary language we might also refer to non-dissipative systems. Teilhard is in full agreement with this, except that this is only one side of the picture. If we are to understand how increases in complexity are directly proportional to the extent of evolutionary time we must look beyond known thermodynamics. This is the Without of matter, and we must account for the Within.<sup>11</sup>

(iii) The Within of matter is a qualitative term whereas the Without is quantitative.<sup>12</sup> It is a discussion of the presence of consciousness in different organisms and to different extents.<sup>13</sup> Teilhard advocates a panpsychism, wherein consciousness cannot be restricted to the human species. This is in short a universal property;

---

<sup>6</sup> PH, 51

<sup>7</sup> Ibid. 51-2

<sup>8</sup> AE, 88

<sup>9</sup> PH, 54. This is also defined elsewhere as the corpusculisation and ramification of energy. (AM, 212-3)

<sup>10</sup> PH, 57

<sup>11</sup> Ibid. 58

<sup>12</sup> Ibid. 58

<sup>13</sup> Ibid. 59

Since the stuff of the universe has an inner aspect at one point of itself, there is necessarily *a double aspect to its structure*, that is to say in every region of space and time – in the same way, for instance, as it is granular: *co-extensive with their Without, there is a Within to things*.<sup>14</sup>

This within is of course present to some extent in all matter. For Teilhard, this means that there must be a continuum of many different properties at all levels of cosmic evolution. Therefore, life, which is usually defined in terms of the attainment of an evolutionary threshold, is in fact always present, but as a more primordial ‘pre-life’.<sup>15</sup> Stretching our gaze backwards in time we will see consciousness always present but in differing shades.<sup>16</sup> But *why* is it that consciousness and life can be found at all levels? The answer is because of the involutive nature of evolution; along this perceived axis of increasing complexity, “everything around us happens as though the stuff of the universe were distilled into a rising series of continually more perfect centres.”<sup>17</sup>

(iv) To understand the evolutionary process at work is to see it as an increase in complexity, in consciousness, in centredness. Pre-life represents the presence of only fragmentary centredness.<sup>18</sup> Centredness (or consciousness) therefore increases as complexity increases.<sup>19</sup> Teilhard argues throughout his career that there is a universal physical law at work here. He can argue that “a richer and better organised structure will correspond to the more developed consciousness.”<sup>20</sup> The centricity of consciousness, and structural complexity are but two sides of the same phenomenon.<sup>21</sup> This is *the law of complexity and consciousness*.<sup>22</sup> As he puts it himself;

<sup>14</sup> Ibid. 61. C.f. AE, 101 and HU, 82

<sup>15</sup> PH, 62

<sup>16</sup> Ibid. 65

<sup>17</sup> AE, 31

<sup>18</sup> Ibid. 105. Life is therefore the manifestation of greater degrees of centredness. (Ibid. 87)

<sup>19</sup> TF, 183

<sup>20</sup> PH, 65

<sup>21</sup> Ibid. 66. This notion of the centre and centrifugation is integral to Teilhard’s work, even in its early formulations. (WW, 19) In terms of evolution, this makes the process both convergent and irreversible. (HM, 86)

<sup>22</sup> PH, 67. C.f. AE, 30 and AE, 86

The fact of evolution comes to remind us that the principal movement of reality is a synthesis, in the course of which plurality manifests itself in increasingly complex and organic forms, each further degree of unification being accompanied by a growth of inner consciousness and freedom.<sup>23</sup>

So far we have seen that there is a within which accompanies the without of all things. Teilhard now reveals that this Within is in fact a form of energy.<sup>24</sup> How is this to be related to the energy comprehended by physics? The solution lies in seeing *all* energy as psychic, but divided into two components, “a *tangential energy* which links the element with all others of the same order (that is to say, of the same complexity and the same centricity) as itself in the universe; and a *radial energy* which draws it towards even greater complexity and centricity – in other words forwards.”<sup>25</sup> This is an essential point; tangential energy is that form of energy that lies in the purview of thermodynamics, whereas radial energy is the propulsion for evolution. This latter property of radial energy will be shown to be integral to Teilhard’s thought. The relationship between these two energies is inversely proportional; the smaller the quantity of radial energy, the more the effects of the tangential (mechanical) energy can proscribe the behaviour of an entity,<sup>26</sup> and a decrease in tangential energy can result in an increase in radial energy and a subsequent increase in internal complexity.<sup>27</sup> One can derive massive radial energy with a low tangential energy. Nonetheless, one can have the strange position of complex organisms apparently contravening thermodynamics by increasing their complexity and tangential energy.<sup>28</sup> The question then is what propels this direction of increased complexity, and does radial energy have an upper limit? The answer to

---

<sup>23</sup> HE, 56. C.f. AM, 139

<sup>24</sup> PH, 70

<sup>25</sup> Ibid. 70. For Teilhard, then, life not matter is fundamental. The history of life is “ultimately nothing but an immense psychic exercise; the slow but progressive attaining of a diffused consciousness – a gradual escape from the ‘material’ conditions which, *secondarily*, veil it in an initial state of extreme plurality.” (HE, 23) As such, there is neither spirit, nor matter, only “*spirit-matter*”. (Ibid. 57-8)

<sup>26</sup> PH, 70, n5

<sup>27</sup> Ibid. 71. Living matter is different in that it is no longer merely at the mercy of chance; it can work with the fruits of chance. Life moves radially. (AE, 107)

<sup>28</sup> PH, 71. This is due to the functioning of for instance human bodies as non-dissipative structures. There is in fact a net increase in entropy due to heat loss and the export of energy from organisms. Overall there is an increase in entropy. Teilhard would perceive this as an increase in radial energy and a decrease in tangential energy. Complexification is comparable to negentropy. It is an irreversible, energetic process, going in the opposite direction to entropy. (TF, 169)

both of these questions lies in a later discussion of the summit of evolution – Omega.<sup>29</sup>

(v) Let us now shift focus and talk of a specific evolution, that of planet Earth itself, and the specific biological evolution that arises on this planet. In discussing this planetary evolution, Teilhard finally makes absolutely clear that everything that arises at an evolutionary threshold is in fact always present at least primordially. In this instance it means that we must not distinguish inorganic and organic chemistry, as they are all part of one operation. In other words, as the Earth undergoes its own inorganic cooling and other tectonic processes, we must see this in conjunction with the polymerising envelope of organic compounds around these. This envelope is in effect a sort of Within of the Earth.<sup>30</sup> The Earth, as a young planet, will have its own discreet quantum of pre-life, making the whole planet to be “the incredibly complex germ we are seeking”<sup>31</sup> As the planet condenses, so does its pre-life, which is the radial energy increasing in proportion to complexity. This involves the spontaneous development of a series of internal freedoms within this organic envelope.<sup>32</sup> This envelope grows due to a dual involution; both the planet and all its constituent atoms curl up upon themselves; the primordial consciousness of the Earth is more than a net, it is a correlated mass;

By the very mechanism of its birth, the film in which the ‘*within*’ of the earth was concentrated and deepened emerges under our eyes in the form of an organic whole in which no element can any longer be separated from those surrounding it.<sup>33</sup>

This, the first layer of the Earth, is the pre-biosphere.<sup>34</sup> Therefore, life has no temporal absolute zero, although the biologists’ preferential evolutionary threshold for life holds true, albeit only as a degree of intensity.<sup>35</sup> Next, we have the

---

<sup>29</sup> PH, 72

<sup>30</sup> Ibid. 77

<sup>31</sup> Ibid. 78

<sup>32</sup> Ibid. 79

<sup>33</sup> Ibid. 80

<sup>34</sup> Ibid. 80

<sup>35</sup> Ibid. 85-6. C.f. AE, 33

penultimate layer upon the planet, the biosphere, formed by the proliferation of life on Earth at this threshold.<sup>36</sup>

(vi) Life, Teilhard argues, begins with the cell; it is the natural granule of life.<sup>37</sup> But of course we must not overlook the continuity between abiotic chemistry and the cell; the cell, looking backwards, converges on the molecule. Therefore primitive microorganisms have a great affinity with the megamolecular.<sup>38</sup> This brings Teilhard back to the idea of temporal fibres over particulate nature. Just as in this light a phylum cannot be understood outside of the context of those organisms that precede it, so the megamolecular world is the forerunner of biology, of simple life.<sup>39</sup> Life, in the form of the cell, is therefore matter displaying its properties, but with an increased level of complexity, and as a consequence, of consciousness.<sup>40</sup> But the affinity with pre-life cannot be overstressed; organic life shows the same properties as pre-life, especially in its complexity, and its fundamental unity.<sup>41</sup> Life is a complex, diffuse superorganism, a cohesive biological whole, not only “a *foam of lives*”, but also “a *living film*.”<sup>42</sup>

To describe the onset of this ‘threshold’ of life, Teilhard emphasises what we might call the contingency of evolution. He cites the preponderance of one stereoisomer of each amino acid, the similarity of identical biomolecules in diverse organisms, and concludes that the biosphere (and so its particular form) is not a necessary evolutionary development, it is simply the victor amongst less fortunate candidates.<sup>43</sup> Coupled with this is his argument as to the singular threshold of pre-life to life (irrespective of the number of protoorganisms that were involved).<sup>44</sup> This did not need to occur only once, and yet it appears that it did; as such this is more than mere convergence, it is a principle, a total process governing the total evolution of the

---

<sup>36</sup> PH, 87

<sup>37</sup> Ibid. 87

<sup>38</sup> Ibid. 91

<sup>39</sup> Ibid. 93

<sup>40</sup> Ibid. 96

<sup>41</sup> Ibid. 102-3

<sup>42</sup> Ibid. 104

<sup>43</sup> Ibid. 105

<sup>44</sup> Ibid. 106

planet.<sup>45</sup> We have a curve, not a cycle; a curve where the contingent<sup>46</sup> presence of *this* biosphere, has prevented the formation of another. The cellular revolution is therefore a form of germination.<sup>47</sup> Life upon the Earth is “a solitary pulsation.”<sup>48</sup>

(vii) Once life begins to propagate, Teilhard argues it utilises a number of processes in its continuing expansion. These are reproduction, multiplication, renovation, conjugation (i.e. sexual reproduction), association (the congregation of cells into multicellular organisms) and controlled additivity (the addition of reproductions to one another in a controlled manner.)<sup>49</sup> The artifices by which life propagates are then threefold; first, profusion, whereby life succeeds by the law of large numbers. Life fights against chance by sheer volume (the level at which natural selection works.) In a groping manner, as many artifices as possible are attempted in order to achieve any successful results.<sup>50</sup> This contingent, apparently undirected aspect of the evolutionary process will reappear later. Second, there is ingenuity, the attempt to improve the design of the living machine, to make *it* more successful and better.<sup>51</sup> Third, we have indifference. This appears to refer to the advent of multicellular life.<sup>52</sup> For what we have here is the sacrifice of the individuality or individual existence of an organism/cell for the greater good of a unit.<sup>53</sup> Teilhard argues that there is a fourth heading to be considered here, namely global solidarity; organisms never lose their solidarity. If we skip a few millennia and discuss the whole evolutionary scheme as it presents itself to us, then we are still confronted by this fundamental unity. The tree of life consists of phyla arranged in overlapping fans,<sup>54</sup> and therefore in the final analysis “the whole assemblage, animal and vegetable, forming by association one

---

<sup>45</sup> Ibid. 110-1

<sup>46</sup> WW, 161

<sup>47</sup> PH, 112

<sup>48</sup> Ibid. 113

<sup>49</sup> Ibid. 115-120

<sup>50</sup> Ibid. 121. C.f. TF, 170

<sup>51</sup> PH, 122

<sup>52</sup> Or for example the endosymbiont theory. It is conjectured, with some degree of likelihood, that certain cellular organelles (chloroplasts in plant cells and mitochondria in animal cells) were at one time independent organisms that became internalised within primitive cells as part of a symbiotic relationship.

<sup>53</sup> PH, 123

<sup>54</sup> Ibid. 153



single gigantic biota, rooted perhaps, like a simple stem, in some verticil steeped in the depths of the mega-molecular world. Life would thus be a simple branch based on something else.”<sup>55</sup>

### **(B) The Evolution of Man**

(i) So far, Teilhard's picture of evolution has had relatively little to say about direction. We have noted that evolution is converging through unity, and complexity/consciousness increases proportionally to evolutionary time. However, this situation changes rapidly when Teilhard begins to discuss *Homo sapiens* and some of our more recent predecessors in PH. In fact the whole discussion of humanity is framed within the larger question as to whether evolution has a direction.<sup>56</sup> Now, evolutionary biology customarily refers to evolution not in terms of advance but in an atemporal category of variations in relative gene frequencies. As we have seen already, Teilhard is insistent that evolutionary theory forces us to a temporal perspective of the cosmos.<sup>57</sup> This leads him to a concern for understanding the *path* from molecule to megamolecule to cell and beyond; this is orthogenesis.<sup>58</sup> Teilhard's conception of orthogenesis is problematic to say the least. This is because he can hold two contradictory positions on evolutionary development. On the one hand, he argues categorically that evolution is a blind, groping process working by random variation. On the other hand he can claim that there is no incompatibility between this factor and orthogenesis, a fundamental evolutionary orientation.<sup>59</sup> Now, on one level this is obvious; mutagenesis is contingent upon the state of the genome in which it is taking place. This means that only certain mutations are possible in any genome at any given time. But this is a limitation upon the extent of possible mutation (and so gene frequencies), not directedness. Teilhard seems to be comfortable with this interpretation of orthogenesis, in that he can refer to it as a

---

<sup>55</sup> Ibid. 153-4

<sup>56</sup> Ibid. 156

<sup>57</sup> As Benz points out, Teilhard's whole purpose is to link evolution with history and especially the history of salvation. (Ernst Benz, *Man's Concept of the Future from the Early Fathers to Teilhard de Chardin* (London: Victor Gollancz, 1967), 67)

<sup>58</sup> PH, 120

<sup>59</sup> AM, 140

purely vectorial quality, defining the trends of evolution, without reference to finality or monophyletism.<sup>60</sup> On the other hand, Teilhard can argue that evolution is only *apparently* divergent, this being due to the groping nature of the process.<sup>61</sup> Evolution actually has a precise orientation and a privileged axis, which corresponds to the proportional increase of complexity over time;

Evolution does not exactly correspond, as Spencer maintained, to a transition from the homogenous to the heterogenous-but to a transition from a dispersed heterogenous (lacking unity) to an organic (unified) heterogenous - or, to put it still more clearly, *to a transition from a lower to a higher state of centro-complexity*.<sup>62</sup>

In other words, the direction of evolution is measured by the increase in radial energy.<sup>63</sup> This orientation is very important for Teilhard. He argues on more than one occasion that it is the vital and missing ingredient in the neo-Darwinist theory of evolution. For him, the phrase “survival of the fittest” is simply insufficient in that it fails to account for the sense of advance and exuberance within the evolutionary process. We must speak instead of survival of the most complex.<sup>64</sup>

(ii) Bearing in mind Teilhard’s proposed law of complexity-consciousness, it comes as no surprise that he identifies a selective criterion whereby we can detect positive variations in psychic content. This is the nervous system.<sup>65</sup> Teilhard then goes on to attempt, in his own words, a classification in the form of degrees of ‘cerebralisation’. For him, the directedness of evolution has been proven by *the differentiation of nervous tissue*;<sup>66</sup>

---

<sup>60</sup> Ibid. 215, n1

<sup>61</sup> AE, 124 and WW, 158. This is the nub of the problem. It does not make sense to argue that evolution moves via large numbers and groping, whilst simultaneously referring to as directed. (Donald R. Gentner, ‘The Scientific Basis of some Concepts of Teilhard de Chardin’, *Zygon*, 3:4 (1968), 432-441, (citation, 436). As Dodson has pointed out, Teilhard’s own attempt at cutting the Gordian knot is to see groping as *directed chance*, as “the organism trying everything in order to find something specific.” (Edward O. Dodson, *The Phenomenon of Man Revisited* (New York: Columbia University Press, 1984), 151)

<sup>62</sup> AE, 103

<sup>63</sup> PH, 157-8

<sup>64</sup> AE, 301-2

<sup>65</sup> PH, 158-9

<sup>66</sup> Ibid. 161

Since, in its totality and throughout the length of each stem, the natural history of living creatures amounts on the *exterior* to the gradual establishment of a vast nervous system, it therefore corresponds on the *interior* to the installation of a psychic state coextensive with the earth. On the surface, we find the nerve fibres and ganglions; deep down, consciousness.<sup>67</sup>

Of course this has been most prominent amongst the primate phylum. Here the process of cerebralisation has been predominant and somatic evolution has effectively been superseded by the evolution of the brain<sup>68</sup>;

Nature has succeeded in making a Man; she can go no further; Organic Evolution has done its work.<sup>69</sup>

Then, as Teilhard puts it in his wonderfully lyrical language, in one outpost of the mammals the growing warmth of consciousness becomes red hot, and at one singular point becomes incandescent, a flame bursts forth and "Thought is born."<sup>70</sup> *Homo sapiens* has arisen. With man, there is a new threshold. A centred surface becomes a centre. A tiny tangential increase results in a massive increase in radial energy, which turns back on itself and makes a giant leap forward.<sup>71</sup> There is no question here of the entirely naturalistic derivation of the human species. For Teilhard, the *origin* of humanity is no indication of its *potential*. There is something about man that gives him a breakthrough, but he is "originally no more than just one of the cosmic stuff's innumerable attempts to involute upon itself".<sup>72</sup> The difference between humanity and the non-self-conscious portion of the primates is no more than some cerebral mutation.<sup>73</sup> This mirrors the entirely naturalistic and contingent advent of both the biosphere and the noosphere.<sup>74</sup> The advent of humanity is due merely to some

<sup>67</sup> Ibid. 162-3. Cerebration is the manifestation of complexity/consciousness at the biotic level. (AM, 139). C.f. Ibid. 220; SC, 155; HM, 37 and AE, 88 and 31

<sup>68</sup> PH, 176. C.f. AM, 221

<sup>69</sup> Henry Drummond, *The Ascent of Man* (London: Hodder and Stoughton, 1894), 126

<sup>70</sup> PH, 176. For an equally charming theological interpretation of this stage of evolution, but with rather more emphasis on the requisite divine action, see John W. Conley, *Evolution and Man: Here and Hereafter* (Manchester: James Robinson, 1902), 43

<sup>71</sup> Ibid. 187. C.f. AM, 227

<sup>72</sup> TF, 173. Teilhard is willing to admit that this threshold shift, in line with for instance Catholic orthodoxy, might be accompanied, or determined, by a specific divine action; the creation of the soul. (PH, 187, n4). C.f. Bernard Delfgaauw, *Evolution: The Theory of Teilhard de Chardin* (tr. Hubert Hoskins) (London: Collins, 1969), 30

<sup>73</sup> TF, 213

<sup>74</sup> AE, 285-6

undisclosed selective advantage possessed by prehuman ancestry.<sup>75</sup> Hence, Teilhard argues, we should not be surprised at the high degree of physical homology amongst the mammals.<sup>76</sup> We also exhibit other similar properties; consciousness, complexity and large numbers.<sup>77</sup>

(iii) The process of the formation of the distinctly human component to the biosphere is called hominisation.<sup>78</sup> Moreover, this is not just the *advent* of the human, it is *still occurring*. It is “the progressive phyletic spiritualization in human civilisation of all the forces contained in the animal world.”<sup>79</sup> What occurs now in the evolution of humanity represents the continuation of all that has gone before;

A cosmic movement (or cosmogenesis). Which takes the more exact form of an organic movement (or biogenesis). And is itself completed in a reflective movement (or anthropogenesis).<sup>80</sup>

It is a reorientation of the whole world; man is the fruit of psychogenesis, but what man does now effaces this process as the mind of man develops. We have noogenesis, and the final layer of the Earth, the noosphere.<sup>81</sup> Through hominisation, the Earth gains a new skin, or perhaps even finds its soul.<sup>82</sup> As Teilhard's language suggests, this is the final outpouring of the processes Teilhard identifies to be at work throughout all stages of the arrangement of matter;

The greatest revelation open to science today is to perceive that everything precious, active and progressive originally contained in that cosmic fragment from which our world emerged, is now concentrated in a ‘crowning’ noosphere.<sup>83</sup>

---

<sup>75</sup> TF, 173

<sup>76</sup> PH, 181-6, especially 186

<sup>77</sup> AE, 34

<sup>78</sup> PH, 187

<sup>79</sup> Ibid. 200

<sup>80</sup> AE, 271. C.f. CE, 141. The evolution of humanity does not indicate a discontinuity with what has gone before, but merely the adoption of “a new method.” (Henri de Lubac, S.J., *The Religion of Teilhard de Chardin* (tr. René Hague) (London: Collins, 1967), 93)

<sup>81</sup> PH, 201-2

<sup>82</sup> Ibid. 202

<sup>83</sup> Ibid. 203. C.f. WW, 36

Teilhard therefore argues that "ultimately matter, for all its admirable powers, realizes itself only in us".<sup>84</sup> Humanity is "le plus grande événement tellurique et biologique de notre planète."<sup>85</sup> This is because of the fact that "by the capital event of hominization, the most advanced portion of the cosmos has become *personalized*."<sup>86</sup> Evolution has produced in us, via a critical threshold, a personal molecule.<sup>87</sup> As Teilhard's language suggests, evolution has surpassed its "anatomical modalities" to move into individual and collective psychic spontaneity. The brain is about as complex as it can get. Teilhard argues that from this point on evolution must take a new form, whilst maintaining the connectivity with the evolutionary process that he perceives at other apparent thresholds. What he advocates is a form of cultural evolution - collectivisation.<sup>88</sup> Evolution now takes the form of the collectivisation of humanity.<sup>89</sup> In other words there is something new on the horizon; no longer simply man, but now mankind.<sup>90</sup> Mankind is itself entering a phyletic phase of collectivisation,<sup>91</sup> and its success is to be measured in degrees of unanimity.<sup>92</sup> Our relationships are becoming bonds<sup>93</sup>; cooperation is now incorporation into a new and living reality.<sup>94</sup>

(iv) Teilhard does not wish to argue that this new stage of evolution is somehow alien to what has gone before. There is no question that neo-Darwinist evolutionary forces are no longer at work. Natural selection is still at work at present, but it is *now subordinate to mind*.<sup>95</sup> What is happening here is found in all species with sufficiently advanced cerebralisation. Teilhard argues that at such levels we can

---

<sup>84</sup> LT, 32. The arrival of humanity demonstrates the innate bias of life within the evolutionary process towards increasing centricity and psychism. (AM, 130-1 and CE, 141)

<sup>85</sup> GB, 59-60

<sup>86</sup> HE, 45

<sup>87</sup> Ibid. 60

<sup>88</sup> AM, 126. Teilhard argues that in the human sphere there is simply another stage of evolution; cultural evolution, or ultra-evolution. (AE, 318)

<sup>89</sup> AE, 35-6

<sup>90</sup> Ibid. 37

<sup>91</sup> Ibid. 65

<sup>92</sup> Ibid. 40

<sup>93</sup> Ibid. 65

<sup>94</sup> Ibid. 54

<sup>95</sup> Ibid. 17-18. As Teilhard himself puts it in a very early comment, "[w]hat advance could there be upon thought?" (MM, 166). C.f. Drummond, *The Ascent of Man*, 147

detect increasing degrees of radial control over tangential energy. In other words, we have a psychical (Lamarckian) control over chance (Darwinian) variations.<sup>96</sup> As with a classic Lamarckian position, traits are developed after the disposition for them is acquired.<sup>97</sup> The point of this is that there is another threshold limit for this faculty in man.<sup>98</sup> As humanity we contribute to our own evolution; it is an auto-evolution, "*a consciously and passionately willed deliberate act.*"<sup>99</sup> This makes thought itself to be an integral aspect of the evolutionary process;

Thus we see not only thought as participating in evolution as an anomaly or as an epiphenomenon; but evolution as so reducible to and identifiable with a progress towards thought that the movement of our souls expresses and measures the very stages of progress of evolution itself.<sup>100</sup>

Quoting Julian Huxley, Teilhard states that we are evolution conscious of itself.<sup>101</sup> As Teilhard puts it, we are the direct link with the unconscious natural order.<sup>102</sup> There is a great responsibility with this knowledge. Teilhard argues explicitly that man must contribute to his evolution; indeed, man cannot be truly himself "unless he becomes practically conscious of the "cosmic" process of which he is a part and even the responsible apex."<sup>103</sup>

(v) The new dimension in evolution lies in the fact that not only has man been able to discover the fact of evolution, but also he has "been enabled thereby to give it sense and direction."<sup>104</sup> This means of course that human unification is at the heart of our

---

<sup>96</sup> PH, 165. C.f. George A. Riggan, 'Testing the Teilhardian Foundations', *Zygon*, 3:3 (1968), 259-313, (citation, 289-90)

<sup>97</sup> PH, 168

<sup>98</sup> Ibid. 169

<sup>99</sup> AE, 292. C.f. AM, 254; CE, 221 and TF, 181. This is spiritualization; the growing predominance of reflection over instinct. (TF, 183)

<sup>100</sup> PH, 243

<sup>101</sup> Ibid. 243. "Man finds himself in a crucial phase of his history. He realizes for the first time that he is situated within an evolution and is himself evolving. He has to acquire confidence in the further course of his own development." (Delfgaauw, *Evolution*, 33)

<sup>102</sup> CE, 43

<sup>103</sup> LT, 159

<sup>104</sup> Walter Bruggeman, 'The Cosmic Christ: Some Recent Interpretations', *Indian Journal of Theology*, 15 (1966), 130-142, (citation, 133)



continuity with evolution, and indeed for Teilhard our societal nature is the culmination and not the attenuation of biological evolution;<sup>105</sup>

The story of Evolution therefore is the history of the struggle of being to assert the qualitative dominance of interiority, spontaneity and psyche, in and through material unification and ordered organisation.<sup>106</sup>

Man exhibits this unity of process, and also a unity of mechanism; we too survive through a groping and inventive process.<sup>107</sup> However most importantly, there is *a unity of movement*;

Man is not the centre of the universe as once we thought in our simplicity, but something much more wonderful – the arrow pointing the way to the final unification of the world in terms of life. Man alone constitutes the last-born, the freshest, the most complicated, the most subtle of all the successive layers of life.<sup>108</sup>

This means, in conjunction with the directedness of evolution, that "[m]an is not an epiphenomenon of evolution, a chance by-product, but constitutive of the process itself and that as its culmination and crown. In other words evolution cannot be understood without its end-product - Man...Man is the end-point which gives meaning to everything that went before."<sup>109</sup> Global human interaction is then a process of additivity,<sup>110</sup> and life must reach on for a new threshold of super-life. To reach this "we have only to think and to walk always further in the direction in which

---

<sup>105</sup> PH, 246. Gabriel Dussault sums this reasoning up nicely;

"The place of man in nature, according to Teilhard, is to be the arrowhead of evolution...We are evolution and we are it to the extent that nothing will continue anymore if we leave the gaming table." (Gabriel Dussault, 'Le Dieu que Notre Siècle Attend: Essai sur le "Pantheïsme" Teilhardien', in Gabriel Dussault, Louis Gendron, André Haguette, *Pantheïsme, Action, Oméga Chez Teilhard de Chardin* (Bruges/Paris: Desclée de Brouwer, 1967), 13–67, (citation, 47–8))

<sup>106</sup> Mervyn Fernando, 'Pierre Teilhard de Chardin: An Outline of his Thought on the History and Future of Humankind', in Leo Zonneveld and Robert Muller (eds.) *The Desire to Be Human: A Global Reconnaissance of Human Perspectives in an Age of Transformation Written in Honour of Pierre Teilhard de Chardin* (Wassenaar: Mirananda, 1983), 26–37, (citation, 30)

<sup>107</sup> PH, 246

<sup>108</sup> Ibid. 247

<sup>109</sup> Fernando, 'Pierre Teilhard de Chardin', 28. C.f. C. Y. Stewart, Jr., *Nature in Grace: A Study in the Theology of Nature* (Macon, GA: Mercer University Press, 1983), 176

<sup>110</sup> PH, 248

the lines passed by evolution take on their maximum coherence.”<sup>111</sup> Teilhard refers to this super life on occasion in terms of the ‘ultra-human’, who or which is the hypothesised future curve of the process of humanization or hominization.<sup>112</sup> Nonetheless, even here there will be no loss of continuity. Teilhard insists that although human evolution will now lead us towards the superhuman, this is not to be understood as the extinction of what we would recognise as *Homo sapiens*.<sup>113</sup> Ultra-hominisation is *the completion of humanity*.<sup>114</sup> Man, “the crowning product of the ages past, will be the supreme factor in the ages that are yet to come.”<sup>115</sup>

The spring and secret of hominisation is therefore the imposition of unification through the psychical curvature of the mind.<sup>116</sup> If we ask after the impetus for this drive to unity, then Teilhard provides a simple formula;

Evolution = Rise of consciousness  
Rise of consciousness = Effect of union.<sup>117</sup>

Human unification is then simply the natural culmination of the biological process – psychobiological unification – the final megasynthesis.<sup>118</sup> But precisely because this is a biological phenomenon, it is megasynthesis in the tangential energies, and

---

<sup>111</sup> Ibid. 257

<sup>112</sup> LT, 110-111

<sup>113</sup> SC, 152

<sup>114</sup> AM, 253, n1

<sup>115</sup> Conley, *Evolution and Man*, 50

<sup>116</sup> PH, 267. Teilhard’s language of present and future human evolution is fairly optimistic to say the least. Indeed, he is so optimistic that he can actually advocate war as a force of evolution as it promotes universalisation via nationalism. (AE, 15) It is therefore the very form of the expression of evolution. (AE, 16) As such;

“Mankind in armed conflict with itself is a Mankind in process of solidification.”  
(HM, 184)

For more on this see chapter 5, “The Organization of Spiritualized Energy: (a) Beyond Aggressive War to Conquest by Research”, of Joseph A. Grau, *Morality and the Human Future in the Thought of Teilhard de Chardin: A Critical Study* (Rutherford: Fairleigh Dickinson University Press; London: Associated University Presses, 1981). For references to war as uniting see Ibid. 185, n5 and 187, n9

<sup>117</sup> PH, 267

<sup>118</sup> Ibid. 267. This idea finds its roots in Teilhard’s earliest works, where he can argue for a distinctive unity of all living things, an idea which finds a reflection in his notion of the primitive existence of properties that appear to arise at evolutionary thresholds. For him, all livings are united in their common matter and their common destiny along the path of increasing consciousness. (WW, 23) In his mature work see for example AE, 30.

consequently “a leap forward of the radial energies along the principal axis of evolution: ever more complexity and thus ever more consciousness.”<sup>119</sup> This is only to be achieved by a collective human effort,<sup>120</sup> through an interior totalisation of the world upon itself, “in the unanimous construction of a *spirit of the earth*.”<sup>121</sup>

### *(C) Evolution and Omega*

In Teilhard’s mystical vision of evolution, there is a distinct and final peak of convergence. This is a megasynthesis of human unification. Teilhard is by no means unaware of the difficulties posed by such a view, not least the relationship between such an optimistic eschatology and the rather more pessimistic views of Cosmology? Teilhard’s solution is to say there is no need for a reconciliation of these two contradictory predictions. Quite simply, Teilhard discounts the idea of human (and so cosmic) evolution ending in futility. There *cannot* be Heat Death or a Big Crunch. To think in these terms is to miss the true significance of the personal and the process of personalisation.<sup>122</sup> The value of these is such that the conclusion of cosmic evolution *must* preserve these. To understand how and why this can be the case we need to look further at Teilhard’s vision of the end of evolution.

(i) This conclusion of cosmic evolution is perhaps the greatest expression of Teilhard’s mystical and scientific interpretation of evolutionary history. In the far future, evolution is perceived to converge on the ultimate union of persons and personhood – the “*personal-universal*”.<sup>123</sup> More precisely, we must conceive of an *absolute terminal point or centre to this convergence*;

---

<sup>119</sup> PH, 269

<sup>120</sup> Ibid. 269

<sup>121</sup> Ibid. 278. C.f. AE, 40. Teilhard is able to ask “how can we fail to see the process of convergence from which we emerged, body and soul, is continuing to envelop us more closely than ever, to grip us, in the form of – under the folds of, we might say – a gigantic planetary contraction?” (HM, 360)

<sup>122</sup> PH, 278

<sup>123</sup> HE, 65

In other words the cosmos - in - evolution has a convergent structure; earlier divergences converging together at a latter and higher point like longitudinal lines divergent at the Equator, meeting at the poles.<sup>124</sup>

Somewhere ahead, the layers and radii meet at *point Omega*. Omega, if we extrapolate forwards, is the point of final concentration of the noosphere.<sup>125</sup> Point Omega in this perspective is the cosmic conclusion of evolution, and so personhood. The cosmos and the personal culminate in *the same direction and each other*.<sup>126</sup> We cannot, of course, directly describe Omega, and this is why we must resort to extrapolation. Indeed, the very existence of Omega, at least from the phenomenological perspective (i.e. that of hyperphysics), can be detected *only as a shadow*. It is defined and delimited by the convergence of centred elements upon it like a wave.<sup>127</sup> To be more specific, it is the very *possibility* of this convergence that provides evidence. There must be a centre at or within Omega that somehow enables the evolutionary drive towards increasing complexity.<sup>128</sup> At this point we can see Teilhard straying into metaphysics if not into theology, insofar as it is clear that Omega must be more than the mere endpoint of a material process. The nature of evolution itself and the value of consciousness and personhood demand it, in that “the universe cannot *be thought of as fully meeting the requirements, both extrinsic and intrinsic, of anthropogenesis* unless it takes on the form of a convergent psychic milieu.”<sup>129</sup> Omega is an entity in its own right. We can go further; Teilhard attributes a number of properties to Omega, which, eventually, will demonstrate the actual identity between Omega and the Christian God. This is not to say that Teilhard’s hyperphysics can deduce the existence of the Christian God; nonetheless, they are sufficient to deduce *the divinity of Omega*.

---

<sup>124</sup> Fernando, ‘Pierre Teilhard de Chardin’, 33

<sup>125</sup> AE, 111

<sup>126</sup> PH, 285

<sup>127</sup> AE, 102-3

<sup>128</sup> TF, 187. C.f. HM, 91

<sup>129</sup> SC, 163

(ii) The first of the deducible properties of Omega is that it must be personal or hyperpersonal.<sup>130</sup> If consciousness and personhood are not to be extinguished at the culmination of evolution, then Omega must itself exemplify personality; this is because a mere collective cannot be personal.<sup>131</sup> The convergence of personal centres requires in turn a cosmic centre, but if there is to be no dissolution of these personalities, this cosmic centre must be distinct from them and itself personal.<sup>132</sup> Omega possesses its own ego.<sup>133</sup> The evolutionary process must proceed until it joins up with "a supremely personal, supremely personalizing, being."<sup>134</sup> Omega must therefore represent a conservation and perfection of *each and every consciousness that has gone before*.<sup>135</sup> This is because "Omega is not a cosmic monster which absorbs and annihilates the individual personality. Rather it is the community of love in which individuals find their personality".<sup>136</sup>

The second property of Omega follows on closely from the first. If Omega is to be personal, and a conserver of persons, then it must be more than a centre born of a fusion of personal elements. It must be *a distinct core at the heart of the system*.<sup>137</sup> The reason for this is related to the ultimate evolutionary destiny of evolved humanity. As we have seen already, it is imperative that humanity and human consciousness survives in the cosmos. So far our evolution has involved a simultaneous terrestrial evolution. In other words, our noogenesis has occurred in

---

<sup>130</sup> PH, 286. C. f. HE, 45. The personal (human being) cannot become suprapersonal; this requires a "special centre", in order to ensure that human persons can remain themselves. (Ibid. p46)

<sup>131</sup> J. A. Lyons, *The Cosmic Christ in Origen and Teilhard de Chardin* (Oxford: Oxford University Press, 1982), 202

<sup>132</sup> HE, 144

<sup>133</sup> AE, 112. Teilhard writes;

"I believe that faith in Humanity can find its final expression and its ultimate assurance only in a consciousness superior to ours, in which the individual consciences (the flowers of Humanity) will lose themselves without ceasing to be themselves." (LT, 77-8)

<sup>134</sup> TF, 188

<sup>135</sup> PH, 287. For Teilhard there is a principle at work here in that "a single particle of consciousness present in the Universe makes it physically necessary that the Universe should become all-conscious eventually, at the end of the transformation; and what finally is Consciousness, if not Personality?" (LT, 149)

<sup>136</sup> Francisco Bravo, *Christ in the Thought of Teilhard de Chardin* (Notre Dame/London: University of Notre Dame Press, 1967), 21

<sup>137</sup> PH, 288

concert with terrestrial evolution, with geogenesis.<sup>138</sup> However, rather anthropocentrically, Teilhard argues that Man is the only essential aspect of the scheme – only humanity must survive and reach the cosmic goal.<sup>139</sup> The distinct reality of Omega is important here in several respects. First, our species must and will eventually become dissociated from a dead and exhausted earth. Then the planet will be abandoned, and mankind will shift its centre “to the transcendent centre of its increasing concentration.”<sup>140</sup> Mind will become detached from its material matrix, and will rest upon Omega.<sup>141</sup> This is only possible if Omega is a distinct centre in its own right.<sup>142</sup> Second, our current evolution requires the reality of Omega. Because hominisation is primarily social and interiorising, it is in a sense vulnerable to adverse impressions. It requires hope. Life can only function if *it recognises itself* as irreversible, and as vitally important;

Life – and so reflection – and so foresight – and so the demand for super-life.<sup>143</sup>

We have to be able to *believe* we may survive the death of our star.<sup>144</sup> Hope stems then from faith in Omega.<sup>145</sup> At this point we should mention how it is that Teilhard envisions the current evolutionary action upon human perceptions. Omega influences humanity through the same energy as that which powers human unification – love. Love enables human centres to unite without conflict or annihilation, and also draws

---

<sup>138</sup> Ibid. 300

<sup>139</sup> Ibid. 303

<sup>140</sup> Ibid. 315

<sup>141</sup> Ibid. 317. C.f. AE, 44. Teilhard refers to this as the end of spiritual evolution. (HE, 47) This shift from a terrestrial to a transcendent matrix is also the reason for the importance of the personal for Teilhard. Only to the extent that consciousness becomes personalised can it escape the material. (AE, 122)

<sup>142</sup> AE, 45

<sup>143</sup> Ibid. 43

<sup>144</sup> Ibid. 43. C.f. TF, 186. As de Solages argues, “a conscious world can only work for an Absolute.” (de Solages, *Teilhard de Chardin*, 282) This again adds greater contingency to evolutionary history, as it is dependent upon our fragile self-evolution. (R. B. Smith, ‘God and Evolutive Creation’, in Anthony Hanson (ed.) *Teilhard Reassessed: A Symposium of Critical Studies in the Thought of Père Teilhard de Chardin Attempting an Evaluation of his Place in Contemporary Christian Thinking* (London: Darton, Longman & Todd, 1970), 41-58)

<sup>145</sup> AE, 50. Teilhard also sometimes seems to suggest that Omega has a property of irreversibility. This relates to the function of hope and the human perception of the irreversibility of evolution. (AM, 271). C.f. Christopher F. Mooney, S.J., *Teilhard de Chardin and the Mystery of Christ* (London: Collins, 1976), 54



humanity towards unity with Omega.<sup>146</sup> But what precisely is love? The short answer is that it appears to be equivalent to radial energy. It is certainly the primal and psychic energy.<sup>147</sup> We may argue this way because Teilhard posits it as the alternative to the energy normally encountered by physicists. Only two energies exist; an interior (radial) energy always more amorised and an exterior (tangential) energy always more calorised.<sup>148</sup> The other reason for identifying love as radial energy is Teilhard's insistence that it is a mundane aspect of the world. It is the energy proper to cosmogenesis.<sup>149</sup> Love is a direct trace marked on elements by "the psychical convergence of the universe upon itself."<sup>150</sup> It is the energy that draws and unites the elements of the world through their centres. As with all patterns of material behaviour, it occurs in all living centres, no matter how primitive.<sup>151</sup> In primitive forms of life, love is hard to distinguish from molecular forces.<sup>152</sup> In man, love is exemplified in hominised form.<sup>153</sup> Man can love to a hitherto unperceived extent in evolutionary history, and as such he is eminently capable of unity, of synthesis through his loving.<sup>154</sup> Omega is important here because the energetic process of amorisation, especially within the human phylum, cannot be fuelled from within the growing human collective. Human love must find "*an individualised heart, an individualised face.*"<sup>155</sup> This face and this heart are of course the distinct centre Omega.

(iii) The third feature of Omega is that, if it is to have its proper power and function, then Omega must radiate its effect as *a present reality*.<sup>156</sup> Omega could not function without being *loving* and *lovable at this moment*;

---

<sup>146</sup> HE, 145

<sup>147</sup> Ibid. 33. Mooney argues explicitly that we can identify radial energy with love. (Mooney, *Teilhard de Chardin*, 52). As he puts it, at the human level, "the law of complexity-consciousness has been transformed into a law of growing amorization." (Ibid. 53)

<sup>148</sup> AE, 120

<sup>149</sup> Ibid. 119

<sup>150</sup> PH, 291. C.f. HE, 33

<sup>151</sup> AE, 70

<sup>152</sup> HE, 33

<sup>153</sup> PH, 290

<sup>154</sup> AE, 71

<sup>155</sup> TF, 187

<sup>156</sup> PH, 294

A present and real noosphere goes with a real and present centre. To be supremely attractive, Omega must be supremely present.<sup>157</sup>

If evolution has no centre, evolution is merely valorised. If there is a centre, it is amorised.<sup>158</sup> But what precisely is it that Omega does and how? Omega is in a sense salvific; it ensures that something escapes from entropy – as such it is *the Prime Mover ahead*.<sup>159</sup> Omega collects and conserves persons.<sup>160</sup> That which is unified through evolution is therefore "subject to a pull."<sup>161</sup> The function of Omega is unity through itself, the apex of evolution.<sup>162</sup> For Teilhard the extent to which an entity is affected is a measure of its psychical content.<sup>163</sup> Of course, this means that although Omega is most effective in its action upon the most centred entities, humans, it is also effective upon all other forms of matter, precisely because all energy is psychic energy.<sup>164</sup> Omega acts *now*, not just as the point of convergence, but also reciprocally as that from which all things radiate.<sup>165</sup> However, we should not stress this active side to Omega to too great an extent. Teilhard can also describe the activity of Omega as passive, as in no wise "any sort of interference, but a resonance."<sup>166</sup> This is consonant with the role of Omega as that which is the impetus for love or radial energy.

The fourth and final property of Omega is that of independence and autonomy. If personhood is to be the final answer of the universe, then Omega must be independent of the final extinction of the universe, regardless of its form.<sup>167</sup> Omega is the summit of the series, but is also *outside* the series, and so *partially* independent of evolution.<sup>168</sup> Omega is then "an ultimate and self-subsistent pole of consciousness, so involved in the world as to be able to gather into itself, by union, the cosmic

<sup>157</sup> Ibid. 295. C.f. AM, 273 and LF, 108

<sup>158</sup> AM, 272. C.f. SC, 191

<sup>159</sup> PH, 298

<sup>160</sup> Ibid. 299

<sup>161</sup> AE, 146. Dodson is therefore wrong when he argues that Teilhard advocates orthogenesis without providing a motive or directive force; it is Omega. (Dodson, *The Phenomenon of Man Revisited*, 150)

<sup>162</sup> Ibid. 222

<sup>163</sup> Ibid. 146

<sup>164</sup> Ibid. 121, n10. Hence Teilhard can argue that "if matter is defined as 'something with no vestige of consciousness or spontaneity', it does not exist." (Ibid. p125)

<sup>165</sup> HE, 147

<sup>166</sup> HE, 148

<sup>167</sup> PH, 297

<sup>168</sup> AE, 112

elements that have been brought by technical arrangement to the extreme limit of their centration – and yet, by reason of its supra-evolutive (that is to say, transcendent) nature, enabled to be immune from that fatal regression which is, structurally, a threat to every edifice whose stuff exists in space and time.”<sup>169</sup> Omega crowns and closes the series. Of course, Omega appears, from the phenomenological viewpoint, to be the peak of the evolutionary process, “as the centre which is defined by the final concentration upon itself of the noosphere.”<sup>170</sup> Omega appears to be purely immanent. But it must be more than this; if it is to hold together, then we must speak of something more. We must speak theologically, and perceive that Omega must contain “a transcendent - a divine - nucleus.”<sup>171</sup> In Omega, “everything climbs as to a focus of immanence. But everything also descends from it as from a peak of transcendence.”<sup>172</sup> Omega is the bridge between transcendence and immanence, and “is not born from the confluence of human ‘egos’, but emerges from their organic totality, like a spark that leaps the gap between the transcendent side of Omega...and the ‘point’ of a perfectly centred universe: *centrum super centra*.”<sup>173</sup> Radial energy, then, gravitates towards a *divine* focus.<sup>174</sup>

#### (D) Critique

Now that we have performed a brief exposition of Teilhard’s hyperphysics, we can move on to provide some scientific critique and some preliminary theological observations about his work. We must provide both forms of criticism because as Teilhard himself admitted, his hyperphysics is not intended to be a purely scientific scheme. This is most apparent in the capacity for hyperphysics to determine the divinity of Omega, but it is also implicit in some of the features of Teilhard’s vision of evolution itself. It is also important to include both scientific and theological

---

<sup>169</sup> TF, 185

<sup>170</sup> AE, 111

<sup>171</sup> Ibid. 145. Teilhard argues that evolution is as such a ‘cantilevered’ process; this is because “the world is without support at one end (when we look back, that is), since at that end it emerges from essential fragmentation. It is only through their forward impetus that things *hold firm*.” (WW, 160. C.f. CE, 71) Evolution requires a transcendent Omega if there is to be any drive towards convergence.

<sup>172</sup> HE, 70

<sup>173</sup> AE, 114. C.f. HE, 65

<sup>174</sup> PH, 298. C.f. AE, 113 and HE, 144-5

critique because, as we argued in the introduction to this thesis, theology and science are connected due to the createdness of the natural order. Where there is a theological difficulty with createdness, then the rational contingency of the natural order is also under threat and *vice versa*. Before we can discuss theology, we must first carry out a scientific critique of hyperphysics, and we need to do this in two ways. First, is Teilhard's hyperphysics itself a scientific method? Second, are the features of evolution and the natural order derived through hyperphysics compatible with scientific findings? It is important to pose these two questions separately, because amongst Teilhard's supporters, there is a tendency to do the opposite. In other words, when Teilhard's phenomenological 'seeing' of the world is congruent with a scientific description of the world, this is taken by his supporters as evidence that his methodology as a whole, and so the general findings of hyperphysics, must also be congruent with science. This is not necessarily a legitimate inference, as it is possible to arrive at a successful conclusion without having a correct premise.<sup>175</sup>

(i) Teilhard's hyperphysics has provoked strong emotions amongst his friends and foes. Representing the former, Henri de Lubac can claim without equivocation that the findings of *The Phenomenon of Man* are "built up on the jealously preserved ground of objective scientific observation."<sup>176</sup> Peter Medewar on the other hand, describes this work as "nonsense, tricked out by a variety of tedious metaphysical conceits".<sup>177</sup> We find a slightly more informative critique from a commentator who both praises and criticises Teilhard judiciously. Olivier Rabut argues that in Teilhard's hyperphysics there is a tendency to equate a conception of reality with reality itself.<sup>178</sup> The problem then is that Teilhard is assuming both the existence of God "and the author's own knowledge of the plans of creation."<sup>179</sup> At the very least,

<sup>175</sup> As Edward O. Dodson points out with respect to some of Teilhard's conclusions, "[s]uch speculations may be necessary and important; they may even be correct; but they cannot be scientific". (Dodson, *The Phenomenon of Man Revisited*, xvii. C.f. 22)

<sup>176</sup> de Lubac, *The Religion of Teilhard de Chardin*, 71

<sup>177</sup> P. B. Medewar, 'Critical Notice', review of Pierre Teilhard de Chardin, *The Phenomenon of Man*, in *Mind*, ns 70/277 (1961), 99-106, (citation, 99). C.f. Sir Alister Hardy, *The Living Stream: A Restatement of Evolution Theory and its Relation to the Spirit of Man* (London: Collins, 1965), 18

<sup>178</sup> Olivier Rabut, O.P., *Dialogue with Teilhard de Chardin* (London/New York: Sheed and Ward, 1961), 129

<sup>179</sup> Ibid. 132

this rather more gentle criticism suggests that Teilhard's vision of evolution is not based entirely on rational contingency.

We can demonstrate the potential danger for rational contingency in Teilhard's hyperphysics by pointing out the fact that empirical evidence is not always given adequate influence over aspects of Teilhard's scheme. The deductive has too great a role and the inductive an insufficient one. This means that Teilhard's work is often provisional because of Teilhard's constant adaptation of his scheme, rather than because his findings are provisional on the garnering of new data. This is of course somewhat hazardous for what is purportedly a scientific endeavour. As Hooykaas has commented, the method of modern empirical science involves framing hypotheses (usually but not always) on the basis of observation and experiment, and the refining or rebuttal of hypotheses through further observation and experiment. In this way, "[t]he decision as to the truth of a scientific theory should be founded in the data and not in what seems logical or plausible to human thinking."<sup>180</sup> The alternative is to be rationalist, and argue that reality must conform to the content and result of human reason. This is how Hooykaas views Teilhard's hyperphysics.<sup>181</sup> For instance, Teilhard argues that the concept of the Within of things is absolutely necessary to explain the state of the cosmos. However, quite apart from the scientific value of this concept, Teilhard's point is that the Within is in fact acceptable to reason, which is not the same as saying conformable to reality, unless one is a rationalist.<sup>182</sup> Moreover, he goes on to illustrate the fact that the concept of the Within cannot be derived from, or tested by empirical method;

One wonders how we know "from experience" and from "phenomena", a second face that is usually *hidden*.<sup>183</sup>

---

<sup>180</sup> R. Hooykaas, 'Teilhardism, a Pseudo-Scientific Delusion', *Free University Quarterly* 9:1 (1963), 1-57, (citation, 4). C.f. *Ibid.* 4-5

<sup>181</sup> *Ibid.* 6

<sup>182</sup> *Ibid.* 8-9

<sup>183</sup> *Ibid.* 12

Hooykaas and others are also troubled by Teilhard's use of analogy.<sup>184</sup> For instance, Teilhard's concept of centrifigation, the formation of progressively more distinct and centred nodes of consciousness is illustrated by analogy to the granular or corpuscular nature of matter.<sup>185</sup> However, whilst the latter can be demonstrated, the former cannot. The same can also be said of his concept of love as energy, in that "it is a mystification to apply the term "love", a human experience, to the cause which holds atoms together in a molecule."<sup>186</sup>

Teilhard's concept of energy is not only potentially non-scientific because of the role of analogy, but also due to the fact that Teilhard insists that tangential and radial energy *must* be forms of one single psychic/spiritual energy. But why *must* this be the case?<sup>187</sup> This does not respect the contingency of energy. Moreover, because Teilhard argues that all energy is *in essence* one form of energy, then we have left empirically verifiable phenomena behind and we are dealing with the essence of being, which is again the domain of rationalism.<sup>188</sup> Hooykaas is also critical of the concept of continuity that is integral to Teilhard's position on evolution. Teilhard is insistent that consciousness and life are present in rudimentary degrees in all forms of matter. However, this is not a hypothesis, posited for example as an alternative to divine intervention as an explanation for these phenomena. Instead, Teilhard again takes a rationalist position and argues that there *must* be continuity in mind and life.<sup>189</sup> Hooykaas points out how this affects the contingency of the natural order;

---

<sup>184</sup> Medawar, 'Critical Notice', 101. C.f. Hardy, *The Living Stream*, 18-19 and Vernon Blackmore and Andrew Page, *Evolution the Great Debate* (Oxford: Lion Publishing, 1989), 169. On a more positive interpretation, John O'Manique argues that Teilhard is steering an opposite course to modern science in that instead of any form of reductionism, "uses what is evident in the activities of higher organisms to shed light on the activities of the lower levels of development, thereby placing the emphasis on psychic activities." (John O'Manique, *Energy in Evolution* (London, Garnstone Press, 1969), 45-6) Note that even this sympathetic interpretation still tacitly admits that hyperphysics does not fit a classic empirical mould.

<sup>185</sup> Hooykaas, 'Teilhardism, a Pseudo-Scientific Delusion', 13

<sup>186</sup> Ibid. 47

<sup>187</sup> Ibid. 14-15

<sup>188</sup> Ibid. 16

<sup>189</sup> With respect to the concept of the Within, Teilhard is going beyond the purview of the natural sciences, "since the general supposition at which he arrives is no longer empirically determinable but can be judged only by its ability to give a unified picture of phenomena." (Pannenberg, *Towards a Theology of Nature*, 139) Teilhard's methodology then is "a massive extrapolation in which the subjection of consciousness to the presence of the central nervous system is disregarded in favor of a more general relationship between gradations of consciousness and gradations of complexity of organization." (Ibid.)



It is a purely rationalistic distortion of the situation, when Teilhard says that on the experimental and phenomenological level a “given” universe and each of its parts *can* only have the same duration. The *given-ness* of the universe denies us every right to make pronouncements about what *can* be in the universe.”<sup>190</sup>

Finally, there is the place of evolution itself within hyperphysics. For Teilhard, evolution is much more than a transformational process. It is instead a governing hermeneutic. But why is this the case?<sup>191</sup> Quoting Teilhard himself, the answer is for “invincible reasons of homogeneity and coherence”.<sup>192</sup> In other words, this is derived neither from empiricism or observation, but from philosophy.<sup>193</sup> This is not to suggest that the empirical plays no role in Teilhard’s scheme, but rather to point out that the empirical does not hold sufficient sway. For D. Gareth Jones this means that Teilhard’s phenomenological hyperphysics is not based on the scientific method itself, but does rely on “an *awareness of the physical* and of that which is observable in nature.”<sup>194</sup> It is a synthetic, not an analytical science.<sup>195</sup> It adds no new information, but merely elucidates what is already there. Instead of providing hypotheses as possible explanations of certain phenomena, it provides positive statements for all phenomena. *It is transexperimental.*<sup>196</sup> However, if the findings of hyperphysics lie beyond empirical investigation, then what is to stop them from *contradicting* the findings of empirical investigation for the sake of satisfying human rationality or spirituality? As Carol Jean Vale puts it, “beneath many of Teilhard’s ostensibly scientific arguments and elucidations, the metaphysical struggles to be freed from its prison of overt empiricism.”<sup>197</sup>

<sup>190</sup> Hooykaas, ‘Teilhardism, a Pseudo-Scientific Delusion’, 19

<sup>191</sup> Ibid. 33

<sup>192</sup> Ibid. 34, quoting from PM, (London, 1959), 220

<sup>193</sup> Ibid. 34

<sup>194</sup> D. Gareth Jones, *Teilhard de Chardin: An Analysis and Assessment* (London: Tyndale Press, 1969), 31

<sup>195</sup> Ibid. 32

<sup>196</sup> Ibid. 33

<sup>197</sup> Carol Jean Vale, S.S.J. ‘Teilhard de Chardin: Ontogenesis vs. Ontology’, *Theological Studies*, 53 (1992), 313-337, (citation, 313). For further discussion of the metaphysics underlying Teilhard’s hyperphysics, and its conflict with empirical science, see J. J. Duyvené de Wit, ‘Pierre Teilhard de Chardin’, in Philip E. Hughes (ed.) *Creative Minds in Contemporary Theology: A Guidebook to the Principal Teachings of Karl Barth, G. C. Berkouwer, Emil Brunner, Rudolf Bultmann, Oscar Cullman, James Denney, C. H. Dodd, Herman Dooyeweerd, P. T. Forsyth, Charles Gore, Reinhold Niebuhr, Pierre Teilhard de Chardin, and Paul Tillich* (Grand Rapids, MI: Eerdmans, 1966), 407-450, (citation, 438-439)

(ii) We have seen so far that Teilhard's hyperphysics is a blend of scientific findings and metaphysics. His methodology here is not that of the empirical sciences, as evinced by those features and properties of the natural order that *must* exist or have precisely the values that Teilhard insists they have. There is no reliance on the rational contingency of the natural order here, insofar as Teilhard has determined what the answer is in advance, prior to investigation. This is an *a priori* and not an *a posteriori* method. Nonetheless, we must not give the impression that all of the conclusions of Teilhard's hyperphysics must also therefore be non-scientific.<sup>198</sup> We must examine the scientific values of Teilhard's conclusions on their scientific merits, although if there are features that are not scientific, then we must take note of what these particular findings imply about the rational contingency of the natural world.

Teilhard's view of evolution is somewhat confusing because he advocates a conic model of the process, which implies a linear (and orthogenetic) process, whilst simultaneously maintaining that the process involves extinction, evolutionary dead ends, 'groping' and chance (contingency). The orthogenetic aspect of his evolutionary model is not without scientific difficulties. It is not controversial to claim that increasing complexity marks the "arrow" of evolutionary time, because this reduces to the truism that we find examples of increased complexity over time. Nonetheless, for Teilhard, complexity is a qualitative as well as a quantitative measure. Increased complexity represents *progress*, and this is not a scientific concept.<sup>199</sup> Science may be able to recognise degrees of complexity, but this cannot

---

<sup>198</sup> Balance is required here. Although it would be injudicious to cast Teilhard's concepts aside as non-scientific without a fair hearing, it is equally possible to overestimate their value, and arrive at rather strained and perhaps even desperate comparisons. Lodovici Galleni argues that the biosphere is analogous to the concept of Gaia, in that both are "evolving towards complexity." (Lodovici Galleni, 'How Does the Teilhardian Vision of Evolution Compare with Contemporary Theories?', *Zygon*, 30:1 (1995), 25-45, (citation, 32-33)) The problem with this is that the concept of Gaia is by no means an established scientific hypothesis. The same is true for Galleni's suggestion that Teilhard's focus on continuity is analogous to the notion of emergent properties. (Ibid. 31)

<sup>199</sup> Delfgaauw, *Evolution*, 75. Despite these difficulties, it is possible to argue with hindsight that Teilhard may have been correct. With respect to complexity/consciousness, Michael Heller argues that the law of complexity is perhaps analogous to the concept of non-dissipative systems, *whilst nonetheless remaining a premature suggestion*. (Michael Heller, 'Teilhard's Vision of the World and Modern Cosmology', *Zygon*, 30:1 (1995), 11-23, (citation, 20))

be equated with *higher* or *lower* forms of existence.<sup>200</sup> Teilhard of course defines evolutionary progress not just with complexity itself, but also fundamentally with an increase in psychic complexity and consciousness, through the process of cerebration. However, this too has dubious scientific value because it suggests that “the single aim of evolution is to produce bigger and better brains.”<sup>201</sup> Finally, not only is the connection between increasing complexity and consciousness true at only a very gross level<sup>202</sup>, but Teilhard’s method of gathering evidence for his law is also somewhat arbitrary. In order to focus wholly on the nervous system, he must omit references to all plant life, insects, all micro-organisms, and all life forms that have in fact specialised by losing complexity.<sup>203</sup> It is one thing to disregard discrepancies in data as anomalous results, and an entirely different thing to ignore potentially valid data simply because it threatens to contradict an overall hypothesis.

To understand how Teilhard maintains the rather more contingent aspect of evolutionary history, we must now move to the scientifically difficult concept of the Within. We have already noted that this concept is unscientific, in that it remains untestable, and so is unsupportable through empirical science. This is not to deny that the behavioural sciences cannot detect the capacity for learning and even degrees of self-awareness in animals. This, however, is a far cry from arguing for even an infinitesimal degree of consciousness in all matter, and seems to owe more to metaphysical necessity than science.<sup>204</sup> However, the real difficulties with panpsychism stem from its perceived influence upon evolutionary history. First of all, the very existence of panpsychism is important for an orthogenetic perspective on evolution, because it suggests that human consciousness has been *prefigured* from

<sup>200</sup> Medawar argues that it is a metaphysical conceit to correlate concepts of higher and lower with consciousness, when complexity represents fundamentally an increase in the complexity of genetic instructions. (Medawar, ‘Critical Notice’, 103)

<sup>201</sup> Riggan, ‘Testing the Teilhardian Foundations’, 292. Rabut argues that Teilhard’s insistence on an evolutionary ‘cerebrating’ direction is simple anthropomorphism. (Rabut, *Dialogue*, 53)

<sup>202</sup> Jones, *Teilhard de Chardin*, 42. It is also a form of circular reasoning, in that “the importance of the nervous system confirms the importance of consciousness and hence of the within throughout evolution.” (Ibid 21)

<sup>203</sup> Riggan, ‘Testing the Teilhardian Foundations’, 293. Teilhard’s rather abrupt dismissal of the question of complexity and consciousness in insects is described as “a certain shuffling of the feet...” by Medawar. (Medawar, ‘Critical Notice’, 103)

<sup>204</sup> Dodson argues that for Teilhard, coherence, or the principle of continuity “requires that life (or pre-life) characterize every material particle.” (Dodson, *The Phenomenon of Man Revisited*, 28. My italics. C.f. Ibid. 29)

the very origin of the process. To maintain any sense of contingency, it is perhaps better to speak in terms of a *preparation* for human consciousness (i.e. as a contingent probability or potential), as we could affirm that the evolutionary precursors which prepare the way for consciousness do not have to be conscious themselves.<sup>205</sup> Second, panpsychism is the motive power behind conic evolution, because radial energy drives evolution towards Omega.<sup>206</sup> Consequently, evolution is characterised by *both Darwinian and Lamarckian motifs*. Evolution involves Darwinian natural selection and mutation, but it also involves a form of Lamarckian psychic selection.<sup>207</sup> This is non-Darwinian in that adaptation is not dependent upon characteristics acquired through inheritance. Instead;

The novelty produced by the chance mutation is, according to Teilhard, psychically selected by an inner urge, which finds its source in the within.<sup>208</sup>

For Lamarck, an individual organism initiated the development of new capacities or organs in response to specific evolutionary pressures or changes, and from the new behaviour that these factors prompted. Teilhard takes this non-scientific concept one stage further and applies it not just to individuals but also to phylogenesis.<sup>209</sup> Teilhard is Lamarckian because cerebration is the result of psychic selection and evolution, *rather than being its cause*.<sup>210</sup> Therefore, he does not deny the existence of chance mutation or change, but psychic selection, like natural selection, is anti-chance.<sup>211</sup> There is of course some confusion here in that Teilhard wants to affirm continuity between natural and psychic selection. But, natural selection does not promote orthogenesis, whereas psychic selection does, because at least in its 'higher' forms, psychic selection is conditioned by the lure of Omega. But is psychic selection in opposition to natural selection? It has been argued that this contradiction explains the vagueness of Teilhard's orthogenetic perspective, in that whilst random mutation and natural selection (those principles recognised by the empirical sciences)

---

<sup>205</sup> Rabut, *Dialogue*, 36

<sup>206</sup> Gentner, 'The Scientific Basis of some Concepts of Teilhard de Chardin', 438

<sup>207</sup> Mooney, *Teilhard de Chardin*, 38. C.f. Riggan, 'Testing the Teilhardian Foundations', 289-290

<sup>208</sup> O'Manique, *Energy in Evolution*, 74

<sup>209</sup> Ibid. 74

<sup>210</sup> Hooykaas, 'Teilhardism, a Pseudo-Scientific Delusion', 26

<sup>211</sup> O'Manique, *Energy in Evolution*, 75-76. However, Teilhard does, wrongly, seem to identify Neo-Darwinism with an affirmation of chance. (Riggan, 'Testing the Teilhardian Foundations', 287-8)

produce the groping (contingent) aspect of evolution, psychic selection (not recognised by the sciences) produces the conic (non-contingent if not apparently necessary) aspect of evolution.<sup>212</sup> On the other hand, psychic selection has been identified as part of natural selection, and so therefore not in contradiction.<sup>213</sup> However, the most articulate interpretation reinforces the quantitative nature of panpsychism, and correlates orthogenesis and groping accordingly.<sup>214</sup> Evolution only has a groping pattern at its lowest (and earliest) levels, where consciousness is the least influential. Here, natural selection and mutation can have the greatest influence on evolutionary progress, and therefore “it is the very random nature of these processes, the uncertainties of mutation and the “luck” of selection, operating on large numbers of organisms, which cause the groping.”<sup>215</sup> Irrespective of how we relate the groping and orthogenetic elements within Teilhard’s scheme, we are confronted by an evolutionary mechanism that has no scientific basis. We have no evidence for ‘spiritual energy’ or ‘radial energy’ as one manifestation of it.<sup>216</sup> Moreover, the suggestion that there is such a conscious Lamarckian drive is a non-scientific vitalism.<sup>217</sup>

Lastly, we should point out the status of Teilhard’s consistent emphasis on continuity within evolution and between the nature of evolutionary products. One distinct advantage to Teilhard’s emphasis is that it removes any suggestion of a scientific creationist or Intelligent Design stance. Divine action within evolution is not to be perceived as interventionist, although as we shall see the exact extent of divine action might be somewhat difficult to ascertain. Unfortunately for Teilhard, his emphasis on continuity can provide him with some difficulties, and not just with concepts such as the Within or pre-life. One of the real problems is his simultaneous insistence on the

---

<sup>212</sup> Riggan, ‘Testing the Teilhardian Foundations’, 291-2

<sup>213</sup> O’Manique, *Energy in Evolution*, 80. In response to this general interpretation, see Rabut, *Dialogue*, 65, especially n4.

<sup>214</sup> P. G. Fothergill, ‘Teilhard and the Question of Orthogenesis’, in Claude Cuénot, F. G. Elliot et al, *Evolution, Marxism and Christianity: Studies in the Teilhardian Synthesis* (London: The Garnerstone Press Limited, 1967), 30-46

<sup>215</sup> Ibid. 43

<sup>216</sup> Hooykaas, ‘Teilhardism, a Pseudo-Scientific Delusion’, 15

<sup>217</sup> Riggan, ‘Testing the Teilhardian Foundations’, 301



singularity and uniqueness of the onset of human self-consciousness.<sup>218</sup> A similar difficulty is encountered in his insistence that human evolution will represent a continuation of what has gone before, although this suggestion is perhaps refutable by future evidence. There are certainly difficulties in his vision of future evolution in the form of a unifying, quasi-organic, social phenomenon.<sup>219</sup>

(iii) We have come to the conclusion that Teilhard's hyperphysics is not wholly scientific in method or content. His vision of an evolving cosmos seems to be ambiguous with respect to the significance of contingency, not only in the sense of rational contingency, but also in the sense of the antithesis to orthogenesis. Overall, his vision is more deductive than inductive. There also seems to be a difficulty with the rationality of the natural order, as exemplified by the degrees of personalism found within all matter. The Within of matter implies fundamentally that all matter is capable of acting wilfully to some extent. If this is the case, what guarantee is there for the lawful regularity of the natural order? So Teilhard's hyperphysics cannot protect the rational contingency of the natural order. Can we find reflections of this failure through an endangerment of createdness in his theology? Let us begin with the theological ramifications of his vision of the created order as he derives it from his hyperphysics.

Although much more extensive and detailed, Teilhard's basic vision of the nature of matter as particulate (a quantum), indivisible (a totum) and dynamic (cosmogenic) is very much in accord with Gunton's argument based on his use of transcendentals. Of course, as we shall note later on, this comparable use of motifs of dynamism has parallel functions for both Teilhard and Gunton. This is manifested in their common emphasis on Eschatology, which for both authors informs their understandings of

---

<sup>218</sup> Hooykaas, 'Teilhardism, a Pseudo-Scientific Delusion', 21. Rabut argues that at this point Teilhard clearly oversteps the scientific evidence in favour of guesswork. (Rabut, *Dialogue*, 96, n1)

<sup>219</sup> Ibid. 99-100. It is worth noting that Dodson, although a firm and careful advocate of Teilhard's position, does acknowledge that there are scientific difficulties with the concept of the Within, the notion of future human development as a biological collective, and Omega itself. (Dodson, *The Phenomenon of Man Revisited*, 226). These are the areas in which empirical evidence has the least influence, and as we shall see later on, they are also the areas in which we find the most urgent theological difficulties.



doctrine, from Creation and Providence to Christology and Ecclesiology. However, there is here one fundamental difference; Gunton relates this creaturely dynamism to the work of the Spirit<sup>220</sup>, and this (along with any extensive reference to Pneumatology) is absent in Teilhard's scheme. Instead of focusing on the work of the Spirit, Teilhard's solution is to concentrate on the Within of things, and so to explain the dynamism of the natural order in terms of the effects of radial energy. The Within is of course reminiscent of the consciousness of all matter as understood in Process thought, which Gunton rejects as a conflation of freedom with creaturely contingency. For Gunton, Process thought achieves the same reflexive Pantheism as is evinced in Dawkins' selfish gene concept, in that the diminution of divine agency results in the unwarranted expansion of creaturely agency. Is it the case that Teilhard also produces a reflexively pantheistic scheme? It is certainly the case that Teilhard's concept of psychic selection implies that the perfection of the natural order, which is achieved after all through evolutionary eschatology, is driven by creaturely consciousness. Teilhard does argue that there is divine action involved in this, because Omega acts as a lure towards further evolutionary progress, but the onus is definitely on creaturely ability.<sup>221</sup> Indeed, orthogenetic evolution represents the liberation of this creaturely capacity from the bonds of those internal and external unconscious forces that render evolution a contingent and groping process. However, as we shall see in later chapters, Teilhard does not argue that all consciousness will strive towards convergence, and so perhaps even that which can progress orthogenetically does not always do so.<sup>222</sup> The capacity of matter for striving towards

---

<sup>220</sup> Perhaps overly so as our critique of Gunton pointed out.

<sup>221</sup> Pannenberg argues that this reflects an inherent ambiguity in Teilhard's thought, "the ambiguity of what finally sets in motion the evolutionary process: point Omega or the evolving entities themselves." (Pannenberg, *Toward a Theology of Nature*, 131) For Pannenberg, the difficulty lies predominantly with the concept of the Within. Because this is the driving energy of evolution, and because Teilhard locates this (radial) energy within creaturely entities, then it follows that the dynamic of evolution must lie with these same creaturely entities. This then reduces Omega and its agency to "a mere extrapolation of tendencies inherent in the evolutionary process or, more precisely, in the evolving animals themselves." (Ibid.) However, Teilhard of course wishes to say more of the agency and reality of Omega for evolution and does so "by describing evolution as the work of a unified spirit who transcends the individual entities and is finally identical with God Omega who creatively and progressively unifies his world." (Ibid. 131-2)

<sup>222</sup> For Teilhard, evolution is the advance of radial energy over tangential energy; it is the liberation of Spirit from Spirit-matter, from its organic/material matrix. Evolution is the manner in which the natural order reaches the Eschaton. There is a suspicion here of a Gnostic devaluing of matter, which is not in any way relieved when we note that Teilhard regards the endpoint of evolution as a discarding of materiality by (human) consciousness, rather than as a perfection of the whole natural

the Eschaton is of course most clearly seen in human evolution, although Teilhard's emphasis on continuity means that human cultural evolution is only a newer and clearer version of what has gone before. The concept of cultural evolution is not unique to Teilhard, and it is seen for instance in Hefner's notion of the 'Created co-creator'. Teilhard's own version of this is particularly reminiscent of evolutionary religious humanism, which is of course why Sir Julian Huxley could write so warmly of Teilhard's vision in the introduction to *The Phenomenon of Man*. Apart from the difficulties in personalising impersonal matter, psychic selection leaves us with a Pelagianism in which the future perfection of the world, achieved through evolution, is a human endeavour. Spirit-matter, especially in its most conscious and complex form at present, is the driving force towards the Eschaton, and not divine action.

There is at least one clear instance in which Teilhard's difficulties with rational contingency can be seen to be based on theological concepts. His insistence that evolution will not fail is a faith claim and not a scientific hypothesis. It disregards contingency, and relies instead on Omega. In turn this suggests that Omega is a theological and not a scientific construct, which impression is highlighted by the features of Omega which Teilhard claims are *necessarily* the case. Although his hyperphysics cannot identify Omega, Teilhard can deduce that Omega is transcendent and so divine. Teilhard, like Gunton, rightly uses the transcendence of God/Omega as the foundation of the other deducible properties of Omega. For instance, the divine immanence by which Omega is present at the Eschaton is dependent upon this divine transcendence. Furthermore, he attempts to avoid Pantheism by arguing for the present reality and consciousness of Omega, and both of these are again motifs dependent upon the prevenience and so transcendence of Omega. Finally, he is insistent on the divine impassibility (God survives the end of the universe) and this is again due to the divine transcendence. Nonetheless, there are some troubling characteristics of Omega. First, because Omega is concerned with the preservation of consciousnesses, then the value of matter seems drastically reduced. Second, our evolutionary progress (and so the eschatological perfection of the natural

---

order. The same is true here with regard to evolutionary progress. Spirit arises from matter, and only when Spirit gains the upper hand can there be progress. That which is unconscious, matter discussed apart from Spirit, is an impediment to evolution and so to the eschatological progress of the world.

order) seems dependent solely upon our faith in Omega. Omega seems *exemplary* rather than *active*. To this end, the action or 'pull' of Omega seems to be as attenuated and easily disregarded as the 'lure' of the God of Process. It is interesting that at this point Teilhard notes that love/radial energy has a weaker effect in more primitive organisms, just as consciousness is weakened and less effective in more primitive entities in Process thought. Therefore, for both Teilhard and Process thought, more primitive organisms and entities are less responsive to God, and so God has less effect on these.

### ***Conclusion***

In this first chapter of our discussion of Teilhard's thought, we have kept away from theological concerns as far as possible, but even so there is some deliberate and accidental overlap between science and theology in his hyperphysics. We say both deliberate and accidental because only the divinity of Omega is intended to be an explicitly theological issue. All else in hyperphysics is in principle a development of purely scientific interests. However, as we have seen, some of the scientific difficulties with Teilhard's findings have also demonstrated a theological significance, as they are relevant for the createdness of the natural order and evolution in particular. These scientific *cum* theological concerns centre so far on the direction and directedness of evolution. An orthogenetic or progressive view of evolution is not a scientific interpretation of the evidence, but it is of theological interest because it is an eschatological commitment. Spirit-matter (or more precisely Spirit, as matter is ultimately left behind) is perfected through evolution towards Omega. Moreover, this perfection *must* occur. The concept of Omega itself is evidently a non-scientific and theological concept.<sup>223</sup> The same is true of the Within, insofar as it risks anthropomorphising inanimate and unconscious matter. These non-scientific aspects of hyperphysics all have theological implications, but is it the case that all of them have implications for createdness? The indications so far would suggest so. The concept of panpsychism has already been flagged up within our

---

<sup>223</sup> It is really a form of natural theology.

grammar of createdness, as a functional equivalent to the anthropomorphism of (for example) the selfish gene that arises from an unmediated deistic understanding of the God-world relationship. Moreover, although it is only suggested so far, Teilhard does seem to equate the path of evolutionary history with eschatology. This again has been discussed within our grammar as a divinising of created capacities, at the expense of divine action. Whilst we cannot be certain as to an exact relationship, this does tally with the inspirational rather than directly active nature of Omega that we have encountered so far. Finally, our grammar affirms, along with the Christian tradition, that the natural order is good, but this cannot be said for the proposed abandonment of matter at the eschaton.

## Chapter 6: Evolution and Theology (I) - Metaphysics, and the Incarnation

### *Introduction*

In the previous chapter we discussed Teilhard's evolutionary thought purely from the perspective of what he refers to as hyperphysics, or a phenomenological approach to science. In the same vein we were able to provide a brief scientific and theological critique of Teilhard's vision. We were able to conclude that despite spirited support for Teilhard from some quarters, the general tenor of his thought in this regard is incompatible with mainstream evolutionary science. We also came to the tentative conclusion that at least in the instances we encountered, the explicitly non-scientific aspects of hyperphysics also had theological consequences, and in particular for createdness. This gives some initial support to our contention that the relationship between science and theology ought to be based on this dual aspect of rational contingency and createdness. We can now move on in the next two chapters to discuss Teilhard's theology itself, and although we can discuss the createdness or otherwise of other aspects of the natural order in his thought, in our critique we will concentrate on the createdness or otherwise of evolution.

Even a cursory examination of Teilhard's thought demonstrates that to understand his theological perspective on evolution, we must frame our discussion in terms of his Christology. This is because, as we noted at the beginning of our treatment of Teilhard, Omega is to be identified with Jesus Christ.<sup>1</sup> For Teilhard, the specifically Christian contribution to a phenomenological interpretation of evolution is to see that "the world's history bears the form of a vast cosmogenesis, in the course of which all the threads of reality converge without fusing in a Christ who is at the same time personal and universal."<sup>2</sup> Fernando describes this well;

---

<sup>1</sup> HM, 92. C.f. CE, 87

<sup>2</sup> HE, 155. Teilhard makes clear that for him Christ-Omega is never a threat to the historical reality and significance of the historical Christ. (TF, 99) The very nature of his theology is predicated upon the historical reality of the Incarnation and the resurrection. C.f. Terrence P. Charlton S.J., *The Incarnation in the Thought of Pierre Teilhard de Chardin, S.J.* (PhD thesis, Boston College, 1986), 61

Evolutionary science and speculation postulate the Omega - point, and indicate its properties. But it remains unidentified. When the light of Christian Faith is brought to bear on this reality, it takes on the figure, form and face of Jesus Christ.<sup>3</sup>

To be more precise, Teilhard identifies Omega with *the return of Christ*, the Parousia. However, Teilhard is far from saying that Christ is divorced from the cosmos and its evolutionary history until the second coming. He very closely links the Incarnation, and a continuing presence and action of Christ in evolution with the Parousia. In this chapter we will deal with the first of these issues, but only after we have addressed an aspect of Teilhard's theology that provides the link between his hyperphysics and his theology. This is his metaphysics of creation.

### **(A) Evolution and Metaphysics**

(i) Teilhard's understanding of the nature of matter and being is very much a development of his Thomist training. Through his own development of Thomist metaphysics, Teilhard discusses God's being as the most perfect example of being, and can then discuss creaturely being relative to this. As might be expected, however, Teilhard's thinking has some divergences. In particular, unlike in Thomist thought, God's being is not to be understood as *esse*, or the act of being itself. Instead, God's being is to be understood as *unire*, the act of unifying or being unified.<sup>4</sup> To be is to be united.<sup>5</sup> Being is not a final notion; it is defined by a particular movement that is associated with it - union. Therefore "to be = to unite oneself, or to unite others (the active form)" and "to be = to be united and unified by another (the passive form)".<sup>6</sup> All of this comes under the rubric of *creative union*;

<sup>3</sup> Fernando, 'Pierre Teilhard de Chardin', 37. "The Omega of science and the Christ of the Bible are two centers of convergence, true heads which polarize and rule the world." (Bravo, *Christ in the Thought of Teilhard de Chardin*, 42-43) They are one and the same because Teilhard argues that the universe cannot have two heads. (Ibid. 43)

<sup>4</sup> This is a metaphysics of *unire*. (e.g. CE, 227). C.f. Emilé Rideau, *Teilhard de Chardin: A Guide to his Thought* (London: Collins, 1967), 154

<sup>5</sup> WW, 155

<sup>6</sup> TF, 193



Creative union is the theory that accepts this proposition: in the present evolutionary phase of the cosmos (the only phase known to us), everything happens as though the One were formed by successive unifications of the Multiple – and as though the One were more perfect, the more perfectly it centralised under itself a larger Multiple.<sup>7</sup>

This leads Teilhard to describe being in terms reminiscent of Process Theology. For instance, his metaphysics of unity enables him to say that every being has two poles, a lower pole from which it emerges, and a higher pole towards which it ascends.<sup>8</sup> Below every entity exhibiting unity there is an expanse of the multiple which has been united *as* this entity and *within* it. Therefore, the multiple (that which is less united) does not cease to exist within a higher unity, because the process of convergence is the same process which actually renders each lower level entity discrete.<sup>9</sup>

(ii) But how does this metaphysics tie in with Christian theology? The answer lies in the God-world relationship and God's act of creation. For this metaphysics we must first assume the existence of a First Being, Omega.<sup>10</sup> This being must also be understood to be triune. God exists by uniting himself, by rendering himself triune, via the process of Trinitization.<sup>11</sup> This enables the doctrine of creation to be seen as much more than an act of efficient causation. In a very real sense creation is the fruit of a reflection of God, the pleromisation or realisation of participated being through arrangement and totalisation. It emerges as a sort of echo or symmetrical response to Trinitization.<sup>12</sup> Teilhard can refer to this twofold process as theogenesis;

<sup>7</sup> SC, 45. This concept is found in some of Teilhard's earliest published letters, suggesting this intuition is integral to his overall mystic perception of the cosmos. For instance, see MM, 112.

<sup>8</sup> SC, 23

<sup>9</sup> TF, 54. For a similar perspective see C. Lloyd Morgan, *Emergent Evolution* (London: Williams and Norgate, 1923), 11-12)

<sup>10</sup> Ibid. 193

<sup>11</sup> C.f. Smith, 'God and Evolutive Creation', 44 and Rideau, *Teilhard de Chardin*, 154

<sup>12</sup> TF, 195

In the first, God posits himself in his Trinitarian structure ('fontal' being reflecting itself, self-sufficient, upon itself): 'Trinitization'. In the second phase, he envelops himself in participated being, by evolutive unification of pure multiple ('positive non-being') born (in a state of absolute potency) by antithesis to pre-positited trinitarian unity: *Creation*.<sup>13</sup>

One of the very interesting and alarming features of this understanding of creation is Teilhard's identification of the non-united, the multiple, with the *non-existent*. All being, by its very nature is in constant drive towards unity, and a greater degree of reality or being. All matter is animate.<sup>14</sup> Moreover, this drive towards greater unity is synonymous with a drive towards greater centricity, by the law of complexity/consciousness. The uncentred is equivalent to the multiple, and has the same ontological value;

Complete exteriority or total 'transience', like absolute multiplicity, is synonymous with nothingness.<sup>15</sup>

In this context we also learn a little of how to understand divine action. If the multiple is non-existent, then for God *to create is to unite*, and so we have the pattern of convergent evolution.<sup>16</sup> The act of creation is a "transition from a state of initial dispersion to one of ultimate harmony."<sup>17</sup> Moreover, the non-existence of the multiple means that God's evolutive creativity, whereby union is achieved for aspects of the multiple, is genuinely creative because it results in *more being*.<sup>18</sup> At the risk of pre-empting our later discussion, we can now see why it is that God creates. There is one state of unity even higher than that of God's own being; and that is "the uniting with God of that which is reduced to a state of union from a state of pure multiplicity."<sup>19</sup> The universe is committed to a pattern of becoming, a direction towards Spirit, and of course Omega.<sup>20</sup>

<sup>13</sup> CE, 178, n4. C.f. Smith, 'God and Evolutive Creation', 42

<sup>14</sup> SC, 46. The propulsion of the multiple or disunited towards unity is to be understood in mundane terms. It is a principle of matter, due to radial energy. We must of course also remember the work of Omega Point as an attractive force for this energy. Smith, therefore, is quite wrong to attempt to understand this movement in Trinitarian terms, as the work of the Spirit. (Smith, 'God and Evolutive Creation', 49–50)

<sup>15</sup> SC, 46–7

<sup>16</sup> AE, 262–3. C.f. TF, 196

<sup>17</sup> CE, 83

<sup>18</sup> Smith, 'God and Evolutive Creation', 44

<sup>19</sup> Lyons, *The Cosmic Christ*. 178. As Vale puts it;

(iii) The concept of creative union also has a number of significant consequences for the doctrine of creation *ex nihilo*, which we have argued is integral to createdness. For Teilhard, this doctrine no longer refers to a primordial isolation of God, signifying the creation with time of an essential dualism between God and the created order. Instead, it means for Teilhard that God and the multiple are in fact two poles of being, wherein God is alone precisely and only because the multiple is non-existent.<sup>21</sup> And so, “it is not the notion of non-being that has to be replaced by that of the multiple or the unifiable: it is the notion of the pure unifiable or the pure multiple that has to be identified with that of nothingness.”<sup>22</sup> God’s act of self-unification stimulates a type of opposition, at the very opposite pole from himself. God cannot exist without an associated multiple.<sup>23</sup> This opposite pole, although it is pure potentiality for being, the “creatable *nil...*” is therefore a necessary consequence.<sup>24</sup> Unfortunately, this means that the multiple does not, strictly speaking, arise *ex nihilo*. The multiple is as it were on *the same evolutionary series as being*; it is merely present as absolute disunity.<sup>25</sup> Teilhard himself argues explicitly against an initial moment of creation. The act of creation must be understood in terms of *a creative transformation*. This is the formation of new being from *pre-existent being*.<sup>26</sup> An act of origination of the multiple is inconceivable;

However far back we look into the past, we see the waves of the Multiple breaking into foam as though they emerged from a negative pole of being.<sup>27</sup>

---

“The Divine unification becomes the prototype for creation, which, according to the Teilhardian theory of creative union, comes into existence and complexifies through a process of unification. The created becomes an essential part of the ongoing, creative dynamic unification of the many into the One.” (Vale, ‘Teilhard de Chardin’, 332)

<sup>20</sup> WW, 154

<sup>21</sup> Ibid. 95

<sup>22</sup> de Lubac, *The Religion of Teilhard de Chardin*, 196

<sup>23</sup> HE, 57-8

<sup>24</sup> TF, 194

<sup>25</sup> Smith, ‘God and Evolutive Creation’, 45

<sup>26</sup> CE, 22

<sup>27</sup> SC, 78. This is a consistent aspect of Teilhard’s thought, as we can see from an entry to his journal, dated 9.10.16;

“Union, like all forms of action, is a recurrence which seems to throw itself back to infinity. Union has to unite something.” (*Journal*, entry 9.10.16, 224)

Whilst it is probably accurate to regard the multiple in Teilhard's thought as a limit-concept, derived dialectically from that of unity,<sup>28</sup> it appears that the multiple is nonetheless both necessary and eternal in Teilhard's theology.

For Teilhard this gives a very specific form to divine action. Because the multiple is apparently eternal, there is no moment when divine creativity ceases and secondary causality takes over. Divine action is therefore conceived as a single, conserving, divine action. New being arises solely through secondary causes.<sup>29</sup> In language reminiscent of Kingsley's evolutionary interpretation of Providence, Teilhard argues;

The First Cause is not involved in effects; it acts upon individual *natures* and on the movement of *the whole*. Properly speaking, God *does not make*: He *makes things make themselves*.<sup>30</sup>

Moreover, God cannot create wholes spontaneously; God must gradually create increasingly complex participated being which is in turn increasingly capable of sustaining his creative effort.<sup>31</sup> As Rideau points out, on Teilhard's account "God can create and wishes to create only beings that exist in *history* and in time, freely endowed by him with the desire to be united to him, and situated within a history (cosmic and human) that is itself also freely endowed with the desire progressively to unify itself in order to be united with God and coincide with its end."<sup>32</sup> Teilhard goes further; not only is it the case that God is incapable of creating individual entities<sup>33</sup>, he also never intended to. Instead, God willed Christ, and the existence of all other entities is the integral forerunner to the final culmination of Christ.<sup>34</sup>

<sup>28</sup> Donald P. Gray, *The One and the Many: Teilhard de Chardin's Vision of Unity* (London: Burns and Oates, 1969), 18

<sup>29</sup> CE, 23. Rideau takes this notion of divine action to be in line with Teilhard's thomist training. (Rideau, *Teilhard de Chardin*, 159)

<sup>30</sup> CE, 28, 32, 179 and VP, 154. It is therefore certainly difficult to argue, as does Donald P. Gray, that for Teilhard the multiple has no intrinsic capacity for unity. (Gray, *The One and the Many*, 30)

<sup>31</sup> CE, 32, n4 and CE, 83

<sup>32</sup> Rideau, *Teilhard de Chardin*, 156. Charlton suggests tentatively that Teilhard may in fact view an evolutionary principle as necessary to any created order, but acknowledges that this would explicitly limit the divine freedom. (Charlton, *The Incarnation*, 138)

<sup>33</sup> CE, 179

<sup>34</sup> SC, 79. We should add that this makes the Incarnation essential to the concept of creative union, just as it will be later shown to be in Teilhard's understanding of evolution itself. (AE, 262-3; TF, 196, 198 and CE, 83)

The difficulty with this position is that if we do away with the concept of creation *ex nihilo*, then the multiple (and so all that is founded on it) must be understood as a threat to God's sovereignty. This would be an appropriate interpretation based on the rather attenuated understanding of divine action that Teilhard implies. It is highly consonant with a competitive view of the God-world relationship. If this is reasonable, then the multiple is no longer a creature, it is divine, or divinised. It is clear that Teilhard would never advocate this conception deliberately, at least in an explicitly pantheistic form. However, he seems willing on occasion to advocate something more akin to Manichaeism. On more than one occasion, and from his earliest developed work, Teilhard *identifies the multiple with evil*.

(iv) Teilhard's position on the nature of evil is that it is unavoidable and inevitable within the cosmos. This is because Teilhard often equates evil with suffering. In turn, suffering is not something extrinsic and foreign to the universe; it is the consequence of evolutionary mistakes.<sup>35</sup> Evil is therefore an integral aspect, indeed *a by-product*, of a cosmos in evolution, of a multiple experiencing rearrangement.<sup>36</sup> Death, suffering and evil are the price that has to be paid for progress, for increasing unity and complexity.<sup>37</sup> Teilhard seems to suggest that *all* matter, precisely because it is not yet fully united at and with Omega, is intrinsically dangerous;

New being, launched into existence and not yet completely assimilated into unity, is a dangerous thing, bringing with it pain and oddity.<sup>38</sup>

In using such a concept of evil and its origin, Teilhard seems to imply that it is *the consequences of the multiple* that make it evil; for instance, he argues that the multiple is *not inherently evil*, it is the fact that it *is* multiple and subject to chance.<sup>39</sup>

---

<sup>35</sup> AE, 50

<sup>36</sup> Ibid. 259-260

<sup>37</sup> CE, 41. C.f. TF, 197

<sup>38</sup> CE, 84 and CE, 149

<sup>39</sup> TF, 197

Elsewhere he attributes this to its transience.<sup>40</sup> In other words, it is the intrinsic properties of the foundation of the cosmos upon the multiple that is the origin of evil;

In an evolving cosmos, *created* being as such has not yet achieved the state of integrity.<sup>41</sup>

Hence, he can argue that it is the limitations that matter places upon the divine activity that explain the presence of evil. *God cannot but create evil*, even with the formation of the first atom.<sup>42</sup> Creation cannot move towards unity without occasionally engendering evil.<sup>43</sup> Redemption then is a compensation for statistical disorder.<sup>44</sup> The language of redemption is appropriate for Teilhard's purposes because he also wishes to describe this evil in terms of sin and original sin. Indeed, he wishes to assert the temporal and spatial pervasion of sin throughout the cosmos.<sup>45</sup> This is so extensive that sinlessness and creature must be mutually exclusive terms.<sup>46</sup> But how can one universalise sin and original sin without a first Adam?<sup>47</sup> The solution is to see evil as the inevitable companion to participated being. It is the shadow of it.<sup>48</sup> As we have said, on occasion Teilhard's language suggests that it is the consequences of the existence of disunity that are to be understood as sin and evil. Where this is the case, Teilhard would appear to be referring to physical evil.

---

<sup>40</sup> Ibid. 57. Hence, Teilhard can argue that life, although it is an axis of universal progression, must still proceed by groping, precisely because it is founded on the multiple. (TF, 170)

<sup>41</sup> John F. Haught, 'In Search of a God for Evolution: Paul Tillich and Pierre Teilhard de Chardin', *Zygon*, 37:3 (2002), 539-553, (citation, 546)

<sup>42</sup> CE, 33. As Gray argues;

"If there is any cause for evil in general, it is God who decided to create by uniting multiplicity." (Gray, *The One and the Many*, 64-5)

<sup>43</sup> TF, 198. One cannot make a unified omelette without breaking multiple eggs.

<sup>44</sup> Ibid. 198, n38. However, as Mooney points out, this means that Christ is the Redeemer precisely as Omega, as the one who ensures that matter evolves. This does not suggest an intrinsic goodness in matter. (Mooney, *Teilhard de Chardin*, 120)

<sup>45</sup> CE, 47

<sup>46</sup> Ibid. 33

<sup>47</sup> Ibid. 38-40

<sup>48</sup> Ibid. 40. "Thus, original sin for Teilhard is a negative and inevitable and structural element in an evolving universe, a universal condition of existence in a progressively converging world." (Robert L. Faricy, S.J., 'Teilhard de Chardin's Theology of Redemption', *Theological Studies*, 27 (1966), 553-579, (citation, 567). On a similar note, many years ago, George Frederick Wright could argue that the concept of "heredity as maintained by modern evolutionists is closely akin to the Calvinistic doctrine of original sin." (George Frederick Wright, 'Calvinism and Darwinism', *Bibliotheca Sacra*, 66 (1909), 685-691, (citation, 687)



This is unwilling, and unintended suffering caused simply by existing within the cosmos.

(v) Teilhard then can refer to sin and evil in terms of the passive presence of suffering and disorder within the cosmos. But this is by no means a consistent position. In fact, there are numerous occasions where Teilhard lapses into an apparent connection between the multiple and *moral evil*, as if it were *the intended consequence of an agent's actions*. On these occasions, the multiple *itself* is evil. Hence, we find Teilhard arguing that absolute multiplicity is absolute evil.<sup>49</sup> Again, there is only one evil, and that is disunity. Or, as Teilhard puts it elsewhere, at the beginning was the multiple, already rising towards unity and the Spirit, but painfully slowly due to its evil nature.<sup>50</sup> Now, it is arguable that such language refers to evil understood as suffering. But this does not account for Teilhard's use of *the language of struggle against the multitude*, of warfare between unity and multiplicity. The Incarnation involves *hand to hand struggle against the multiple*<sup>51</sup>, *an attack on the multiple* in the form of a war between God and evil.<sup>52</sup> Also, every new act of unity is *a victory over the multiple*.<sup>53</sup> This has led Claude Tresmontant to liken Teilhard's position to that of Babylonian cosmologies, such that in Teilhard we find "what amounts to a metaphysical mythology".<sup>54</sup> In terms of the language of sin, original sin is to be understood as "the essential *reaction* of the finite to the creative act."<sup>55</sup> *By the very act of creating*, God commits himself to a combating of evil, and indeed to some form of redemptive action.<sup>56</sup> Note the close link between creation and redemption here; redemption is the counterpart of creation.<sup>57</sup> Creation, fall, incarnation and redemption must be seen as elements of one and the same divine action.<sup>58</sup> The

---

<sup>49</sup> SC, 51. Indeed, Teilhard can describe this opposite pole to God as hell. (CE, 164)

<sup>50</sup> SC, 79

<sup>51</sup> Ibid. 62

<sup>52</sup> TF, 196

<sup>53</sup> WW, 96

<sup>54</sup> Claude Tresmontant, *Pierre Teilhard de Chardin: His Thought* (Baltimore: Helicon Press, 1959), 91, quoted in Gray, *The One and the Many*, 24

<sup>55</sup> CE, 40. My italics

<sup>56</sup> Ibid. 40 and 84

<sup>57</sup> Ibid. 51-2 and 84. C.f. SC, 80, n15

<sup>58</sup> CE, 53. C.f. Gray, *The One and the Many*, 66 where he notes this connectivity between creation and redemption but does not accept the notion of an inherently evil multiple.

multiple must be *saved*.<sup>59</sup> Coupled with the language of active evil, this view of redemption suggests more than a mere restoration of statistical order. How are we to interpret this language? It is our contention that we are witnessing the consequences of failing to maintain a concept of createdness; the multiple here seems to be *an agent* and to have actual powers.<sup>60</sup> This is particularly confusing if one considers the fact that the multiple is supposedly non-existent! The multiple has lost its creaturely status, and has therefore taken on divine attributes, including apparently being eternal and necessary. As such, for Teilhard it is a threat to God's own sovereignty, and even *God's purposes*.<sup>61</sup> This situation is compounded by Teilhard's ambiguity over the necessity of the created order for God's purposes. Teilhard can sometimes suggest that the new degree of unity that Omega represents is in fact necessary for God's own being. The co-existence of created and uncreated is essential to both in order to obtain this highest degree of unification.<sup>62</sup> God may be self-sufficient, but the universe contributes something *vitality necessary* to him. It contributes to the pleromization of God.<sup>63</sup>

(vi) Let us recap. So far we have argued that Teilhard fails to safeguard the createdness of the multiple. This applies both to the contingency and the intrinsic goodness of the original creation. It would appear that both of these omissions stem from Teilhard's understanding of the intrinsic value of unity, and in particular Omega, both in its own right and for God's own being. Teilhard overvalues unity, undervalues multiplicity, and in short fails to acknowledge the inherent value in the

<sup>59</sup> Ina Bergeron and Anne-Marie Ernst, *Le Christ Universel et l'Evolution selon Teilhard de Chardin* (Paris: CERF, 1986), 122. God saves the creation by completing its evolution. (Stewart, *Nature in Grace*, 200)

<sup>60</sup> See the comment on this agential aspect of the multitude in Stewart, *Nature in Grace*, 241

<sup>61</sup> Smith seems to have noted this possible interpretation of Teilhard's thought, but he relates this to a concept of divine self-limitation. Very much in line with Moltmann's concept of *zimum*, he argues that God must limit himself to pose a nothingness in which creation can occur. What Smith then claims, but fails to account for, is the presence of the image of the Trinity (i.e. unifiability) within this nothingness. (Smith, 'God and Evolutive Creation', 52) Not only is this image of the Trinity within the nothingness inexplicable, it is very difficult to find solid references to a conception of divine self-limitation within Teilhard's thought. What Smith has noticed is the fact that Teilhard's language is consistent with a limitation on God's part. At most he can impose some form of order on the multiple. Therefore, God is not limiting himself for the sake of the multiple; it is rather that Teilhard envisages such limitations to be necessary aspects of God's nature.

<sup>62</sup> CE, 227

<sup>63</sup> Ibid. 177

whole created order. Redemption must then be understood as the overcoming of the evil which is multiplicity, as “a gradual coordination of elements”<sup>64</sup>, and becomes integral to the divine creative act. Such a scheme cannot account for the presence of evil within the initial creation, except as some form of pre-cosmic Fall.<sup>65</sup> Even this is inconceivable because Teilhard finds difficulty in affirming an original creation. Teilhard cannot affirm the creation of the multiple, and it comes to be regarded as evil, because it is in competition with God. Hence, we find the language of active evil. If the multiple cannot be affirmed in its createdness, then Teilhard is inadequately distinguishing his position from one of a dualistic metaphysics in which God is eternally confronted by an opposite pole of being.

### ***(B) Evolution and the Presence of Christ***

Because Christology and evolutionary theology are closely linked in Teilhard’s thought, our first foray into his theology proper must begin with the question *cur Deus homo?* Why was there an Incarnation? For Teilhard, the answer appears to be twofold; the Incarnation is essential for the redemption wrought by the whole life of Jesus Christ, but there are suggestions that the Incarnation would have occurred even without the presence of sin in the world.<sup>66</sup> Teilhard explicitly refers to Scotus, and argues that there had to be an Incarnation if Omega is to function properly.<sup>67</sup> In other words, Omega simply cannot occur if Christ is not a part of the preceding evolutionary process. Moreover, Omega represents the perfection of the natural order. Therefore, for Teilhard and Gunton, Christology embraces eschatological and soteriological theological motifs. For Teilhard, evolution is essential to both types of motifs.

---

<sup>64</sup> H. A. Blair, ‘Progress’, in Hanson, *Teilhard Reassessed*, 79-100, (citation, 92)

<sup>65</sup> Ibid. 98

<sup>66</sup> The question as to whether sin and evil are unavoidable is at best a moot point, as we noted in the previous chapter.

<sup>67</sup> AE, 150. C.f. Bravo, *Christ in the Thought of Teilhard de Chardin*, 38

(i) For Teilhard, Omega is an eschatological and a redemptive achievement. We noted in the last subsection that redemption is to be understood in terms of thermodynamics, as the attainment of order and unity. This seems particularly clear because Teilhard suggests that it is Omega itself that is the culmination of redemption;

Is the kingdom of God a big family? Yes, in a sense it is. But in another sense it is a prodigious biological operation – that of the Redeeming Incarnation.<sup>68</sup>

In other words, the physical (and perhaps moral) evil of disunity is to be overcome through a final and complete organic unification of the world with God. This union is so intense and intimate, that Teilhard envisages this as a kind of Pantheism; God all in all. Now this is an essential point in Teilhard's thought. It is so prominent and consistent that our critique at the end of the last chapter was based around *reflexive* Pantheism in Teilhard's metaphysics. Hence, for Teilhard, this is not a Pantheism where God becomes all, or is identified directly with evolution. God is all in everyone, by the differentiating and communicating action of love.<sup>69</sup> Unity with the divine does not come at the cost of consciousness or identity.<sup>70</sup> As Gabriel Dussault puts it;

First of all, although God is really all in everything at the end of the world or in the world's future and already currently "hoped for" yet questionable, it in no way follows that God destroys the inherent personality of the elements which he unifies in himself; he does not annihilate us when he invades us.<sup>71</sup>

Omega maintains the identity of both divine and creaturely elements. Indeed, as de Lubac has pointed out, Teilhard is opposed to Pantheism precisely because it depersonalises God.<sup>72</sup> He is also opposed to the pantheistic annihilation of the

---

<sup>68</sup> PH, 321

<sup>69</sup> Ibid. 338. This is God's eschatological immanence in the world. Dussault, 'Le Dieu que Notre Siècle Attend', 59. Teilhard refers to his views on pantheism throughout his work.

<sup>70</sup> MD, 104. "The pagan holds that man divinises himself by closing in upon himself; the final act of human evolution is when the individual, or the totality, constitutes itself within itself. The Christian sees his divinisation only in the assimilation by an 'Other' of his achievement: the culmination of life, in his eyes, is death in union." (Ibid. 107) C.f. Ibid. 120; WW, 29 and SC, 107

<sup>71</sup> Dussault, 'Le Dieu que Notre Siècle Attend', 42-3

<sup>72</sup> Henri de Lubac, *The Faith of Teilhard de Chardin* (tr. René Hague) (London: Burns & Oates, 1965), 23

identity of the creature. God is the name of consummated being, not in the sense of dissolution, but in the sense of fulfilled personhood.<sup>73</sup>

(ii) If the goal of creation in ultimate unity is itself redemptive, then redemption traditionally understood as a response to sin must also be reinterpreted in this light. As Mooney rightly points out, Teilhard never associates redemption with a payment for human sin.<sup>74</sup> It is always understood as a creative enabling of further evolution, and more specifically human evolution. Therefore, precisely because human evolution is at the forefront of cosmic development, any threat to human evolution is a threat to Omega, and the fulfilment of all creation.<sup>75</sup> Human sin is the great threat to human unification. Without the Incarnation, sin would return everything to the multiple.<sup>76</sup> Good and evil are therefore to be understood in eschatological terms. That which moves towards synthesis and unity is good.<sup>77</sup> On the other hand, evil should be understood *strictly speaking* not as a reality but as “a residue of the good, a relapse towards non-being.”<sup>78</sup> As Teilhard puts it, “through Christ, the bundle of all created matter that was in danger of falling back and disintegrating is re-formed in a higher, terminal, unity, balancing the lower, radical, unity drawn from incorporation in one and the same matter.”<sup>79</sup> The Incarnation is therefore God’s way of ensuring evolutionary progress by addressing us through Christ, who becomes immanent within the process;

If the universe is rising progressively higher towards unity, it is therefore not only under the influence of some external force, but because in that unity the transcendent has made itself to some degree immanent.<sup>80</sup>

---

<sup>73</sup> HE, 67

<sup>74</sup> Mooney, *Teilhard de Chardin*, 133

<sup>75</sup> Bravo, *Christ in the Thought of Teilhard de Chardin*, 64. For an earlier, and presumably unconnected, reference to the Incarnation enabling further social Evolution, see Conley, *Evolution and Man*, 132

<sup>76</sup> HU, 147

<sup>77</sup> Stewart, *Nature in Grace*, 195

<sup>78</sup> Ibid. 196. To this end Stewart can argue against a Manichaeian interpretation of Teilhard’s thought. (Ibid. p198) We would heartily agree that any Manichaeism in Teilhard is not deliberate, but nonetheless we feel it is an unavoidable consequence in his thought.

<sup>79</sup> MM, 160

<sup>80</sup> AE, 148

Note the significance that Teilhard attributes to evolution in this scheme. Evolution is of course vital for redemption, insofar as it is necessary if there is to be an evolved humanity and so a locus for the Incarnation.<sup>81</sup> But we have already noted that there would have been an Incarnation irrespective of the presence of human sin within the world. This is because of the recurring motif that Omega cannot be achieved otherwise.

(iii) For Teilhard the goal of Omega cannot be achieved without a continuing and evolving presence of Christ within the evolutionary process.<sup>82</sup> As such Christ is the presence of Omega within the evolutionary process “in the form of a *leader element* (the Christic centre), appearing phyletically in the noosphere and gradually subordinating all the other centres.”<sup>83</sup> Therefore in Teilhard’s thinking we find a parallelism with Gunton’s thinking. Teilhard too wishes to see the Incarnation as an event that gains its shape from the need to ensure that the cosmos can follow the path to eschatological perfection. This perfection is of course to be understood in terms of the final unification of humanity with Christ-Omega;

By partially immersing himself in things, by becoming ‘element’, and then, from this point of vantage in the heart of matter, assuming the control and leadership of what we now call evolution. Christ...aggregates to himself the total psychism of the earth. And when he has gathered everything together and transformed everything, he will close in upon himself and his conquests, thereby rejoining, in a final gesture, the divine focus he has never left.<sup>84</sup>

The cosmos is then one in which “a divine involution steps down to combine with the mounting evolution of the cosmos...”<sup>85</sup> Therefore “*it was in order that he might become omega*” that Christ became incarnate and so conquer and animate the

---

<sup>81</sup> Smith, ‘God and Evolutive Creation’, 49

<sup>82</sup> MD, 33

<sup>83</sup> AE, 114, n7

<sup>84</sup> PH, 322. C.f. CE, 146. “Christ is therefore the axis as well as the immanent - transcendent pole or End - Point (Omega) of the evolutionary process; the Centre in which all centres will be in-voluted and fulfilled.” (Fernando, ‘Pierre Teilhard de Chardin’, 37). Note how the Incarnation is therefore proleptic; it is the presence of the future and future conditions within the present. The absence of any reference to the Spirit in this description is not coincidental.

<sup>85</sup> TF, 191



universe.<sup>86</sup> God creates for the sake of the Incarnation,<sup>87</sup> and Omega. As we noted at the beginning of this chapter, for Teilhard, the convergent universe must have only one head, and this is Christ. Therefore we can say that evolution has *no natural goal*; the goal is Christ-Omega.<sup>88</sup> The purpose of the Incarnation is redemptive therefore not only in the life, death and resurrection of Christ, but also in the manner in which it establishes the evolutionary path towards Omega through a continuing presence of Christ within evolution. Evolution is therefore vital to both the redemption and perfection of the cosmos.<sup>89</sup>

(iv) We need to look now at how Teilhard correlates the Incarnation with this continuing presence of Christ. In order to do this we must first have a clearer understanding of how Teilhard understands the connection between the Incarnation and the God-world relationship. Teilhard's vision of the Incarnation is one of an expression of divine immanence, such that his position allows him to posit the presence of Christ within the evolutionary process both *before* and *after* the Incarnation. Teilhard's immanentism is by no means a merely rational theological position. It is rather an aspect of a highly moving and powerful mystical vision. For Teilhard, the presence of God within the world must be understood as the divine milieu, or the omnipresence and immensity of God;

---

<sup>86</sup> SC, 54. My italics

<sup>87</sup> *Journal*, entry 27.1.919, quoted in Charlton, *The Incarnation*, 140. Deitz argues rightly then that for Teilhard "[c]reation, Incarnation, and evolution all have the same purpose: perfect union of matter with God." (Margaret Mary C. Deitz, 'The Theology of the Redemption of Duns Scotus and Teilhard de Chardin' (PhD Dissertation, St. Mary's University and Seminary, Baltimore, 1975), 97)

<sup>88</sup> WW, 59

<sup>89</sup> There is a striking parallel between Teilhard's thought on the eschatological and soteriological evolutionary significance of the Incarnation and an earlier argument by E. Griffith Jones (*The Ascent Through Christ: A Study of the Doctrine of Redemption in the Light of the Theory of Evolution* (London: Hodder and Stoughton, 1902)). Here Griffith-Jones argues for a cessation of organic evolution at the human threshold (Ibid. 51), the present use of social instincts for a form of spiritual evolution, its inhibition and regression by sin, and the redemptive role of the Incarnation as that which reverses this backwards evolutionary trend (Ibid. 53). Most strikingly, Griffith-Jones, makes the wider connection between the Incarnation as that which "not only aims at the restoration of Man to his primal position, but at a complete and perfect development of all his spiritual possibilities." (Ibid. 282). However, he goes further than Teilhard and argues that the resurrection body is the fulfilment of evolutionary development. (Ibid. 349)

By means of all created things, without exception, the divine assails us, penetrates us and moulds us. We imagined it as distant and inaccessible, whereas in fact we live steeped in its burning layers.<sup>90</sup>

In this vision, as with all his thoughts on the God-world relationship both at present and at Omega, Teilhard strives constantly to ward off any suggestion of Pantheism, understood as an identification of God and creature. For him, the divine milieu is an ocean that sustains and sur-animates all things, and yet is nevertheless a concrete transcendence that brings all things into God's personal unity, without confusion.<sup>91</sup> God can reveal himself as the universal milieu only because he is already the ultimate point of convergent reality<sup>92</sup>, and God can unite all things only because he is the centre of centres.<sup>93</sup> This scheme is of course reminiscent of Teilhard's purely phenomenological extrapolation of the nature of Omega. In fact, Teilhard argues that because God is the centre of centres, he coincides perfectly with Omega.<sup>94</sup>

(v) This connection between immanence and Omega returns us to the Incarnation. Omega is more precisely Christ, and the manifestation of the divine immanence within the created order is therefore the Incarnate Lord.<sup>95</sup> Hence it is that the Incarnation is *a partial immersion*; the body of Christ is only a spatial point and temporal moment of God's insertion into the world. The Incarnation itself is not to be perceived as a strictly localised event; because Christ's body is in fundamental unity with all matter, "what the Word really assumed is the whole universe; and he assumed it in a unique fashion, for he himself had already been assumed by it."<sup>96</sup> The point then is to see the Incarnation as the highest expression of an ongoing process.

<sup>90</sup> MD, 99. C.f. WW, 47. Nonetheless, he argues explicitly for a theology that affirms divine immanence. (AE, 262)

<sup>91</sup> MD, 100. A number of commentators have been keen to stress this transcendent basis for divine immanence in Teilhard's thought, and so head off an immanentist interpretation of his thought. For instance, de Lubac, *The Faith of Teilhard de Chardin*, 27 and Charlton, *The Incarnation*, 102

<sup>92</sup> MD, 101. In this work he can argue that in the light of this divine milieu all cosmic elements are but cones of reality converging upon God. (Ibid. 101) Teilhard is enamoured of the imagery of cones for describing evolutionary convergence, and we shall come upon them again.

<sup>93</sup> MD, 102. C.f. HE, 68-70

<sup>94</sup> PH, 322

<sup>95</sup> MD, 110. C.f. Ibid. 104-5 and SC, 59, n5. Teilhard argues for a position parallel to the understanding of Omega as Christ; the mystical Christ is without significance except as an expansion of the historical Jesus of Nazareth. (MD, 105)

<sup>96</sup> Bravo, *Christ in the Thought of Teilhard de Chardin*, 52

The Incarnation “is not a process which exhausts itself in a single and unique historical person. It is a process of transformation which aims at the divinisation of man. But, in man, it transforms the universe.”<sup>97</sup> As Teilhard puts it, the first Christmas was not devoid of Christ, it was rather imbued by an influx of his power.<sup>98</sup> We must understand the presence of Christ at the widest scale of existence, and this in Teilhard’s peculiarly retroactive language;

When Christ first appeared before men in the arms of Mary he had already stirred up the world.<sup>99</sup>

Therefore the Incarnation is the link between immanence and evolution because “God himself” rises up in this world and “the organic form of the universe thus divinised is Christ Jesus”.<sup>100</sup> For Teilhard, the Incarnation represents an increasing revelation or clarity of this ongoing christological immanence within matter. However, there is some ambiguity as to the typical creaturely status of this matter. Teilhard argues that the Incarnation required the creation by God of the Virgin Mary, “a purity so great that, within this transparency, He would concentrate Himself to the point of appearing as a child.”<sup>101</sup> Teilhard seems to suggest that Christ does not become incarnate in matter *per se*, it is rather rarefied or purified matter. Hence, he can refer to matter *ascending* to Mary and then Christ, and then on to the body of Christ.<sup>102</sup> This is suggestive of the moral ambiguity of the multiple. Irrespective of these issues, it is clear that for Teilhard the Incarnation is a necessary implication of the created order. God may freely create the universe, but he must be incarnate if it is

---

<sup>97</sup> EB, 218. The Incarnation is therefore not simply the moment of the incarnation of the Word in Jesus Christ, it is rather “the ongoing process of God’s self-immersion in the world in order that everything might become united to God.” (Charlton, *The Incarnation*, 1)

<sup>98</sup> HU, 76

<sup>99</sup> Ibid. 77. C.f. SC, 60-1 and WW, 253-4. Bravo describes this well;

“In God’s decision and creative work as well as in the conscious or unconscious expectation of the universe, Christ-Omega was present as a universal undercurrent and common aspiration throughout the centuries.” (Bravo, *Christ in the Thought of Teilhard de Chardin*, 53)

<sup>100</sup> HU, 119

<sup>101</sup> MD, 125

<sup>102</sup> WW, 59

to reach Omega.<sup>103</sup> The Incarnation is the fulfilment of being.<sup>104</sup> It is shaped by the needs of evolution and of redemption.

(vi) So far we have briefly referred to Teilhard's arguments for the evolutionary development of Christ's mystical body (and the Incarnation therein), and to the (eschatological) identification of the risen Christ with Omega. We have also noted the fact that Christ is now ever present within the evolutionary process to ensure that the fulfilment of being and redemption, which is Omega, can be reached. Moreover, we have begun to see how Teilhard places the Incarnation and this ongoing presence of Christ within the context of his understanding of divine immanence. But this is by no means the end of the story. The presence of Christ within the cosmos is of a radically different nature after the Incarnation. This is reflected in the new intimacy between God and evolution which leads to Teilhard's vision of the evolutionary formation of the mystical body of Christ. In the next chapter, we can begin to address this co-evolution of cosmos and Christ, but we must first turn to one of Teilhard's most confusing and yet most important concepts. How are we to describe the presence of Christ post-Incarnation, and how does this relate to evolution?

### *(C) Critique*

In Teilhard's vision of creation and the christic presence within evolution, we find a great deal of similarity and dissimilarity to the motifs in our grammar of createdness. It is clear that in Teilhard's thought the natural order is always to be perceived from an eschatological perspective, as something with an intrinsic destiny. Moreover, we can see how, as in Gunton's theology, this eschatological perspective has permeated into other areas of theology, giving the doctrines of creation, the Incarnation, the Atonement and Hamartiology a shape that is governed by this eschatological nature

---

<sup>103</sup> Bravo, *Christ in the Thought of Teilhard de Chardin*, 52. C.f. Stewart, *Nature in Grace*, 184

<sup>104</sup> "All matter wants to live, all life wants to become man, and in man, it wants to join man's goal, which is God. Incarnation is the aim of God, the aim of his self - unfolding and self - realization." (EB, 219)

of the created order. Nonetheless, Teilhard's theology also has some distinct differences from our grammar of createdness, some of which develop the theological characteristics we noted in the previous chapter. Overall, the difficulties in Teilhard's theology centre on the idea of how the Eschaton is to be reached, because this has effects on the createdness of evolution and created entities that are evolving, as well as the nature of divine action and the God-world relationship.

(i) The basic premise of Teilhard's *unire* metaphysics, creative union, is not in and of itself a concept hostile to the createdness of the natural order. Indeed, insofar as it insists on the continuity between inanimate and animate, conscious and unconscious, and human and non-human matter, then it can help us to avoid any concept of a chain of being, and so degrees of createdness. Moreover, if the multiple is taken to represent perhaps undifferentiated matter or even energy itself, then to perceive it as coalescing into organised or united mass/matter could be very helpful. Finally, because this creaturely *unire* mirrors the divine *unire*, then we have a hint of the transcendentals that are integral to Gunton's work. However, the analogy breaks down when we focus on the creative aspect of both creaturely and divine being. Whilst we do not wish to contend with the idea that God's being is in his act (whether this be in the Thomist *esse* or Gunton's being-as-communion) we are concerned that in Teilhard's thought God is uniting himself, and because uniting = being, then God is even in some sense *creating* himself. It may be this self-creating divine action that leads Teilhard to associate Trinitization with the formation of the multiple.

What we would normally consider as an act of creative will becomes for Teilhard associated with the divine being. As such, creation is no longer the contingent result of a willing act but is instead necessary to the divine being. Teilhard has of course grasped this consequence of his vision of creation and seeks to head it off by arguing that the multiple is non-existent. However, this is not sufficient to rescue the doctrine of creation *ex nihilo*. First, because Teilhard's moral language in relation to the multiple implies that it has properties, which the non-existent cannot, and second

because Teilhard himself seems unwilling to advocate this doctrine, preferring to trace lower degrees of unity back into an infinite regress. As such, Gray's argument that the multiple is a limit concept for Teilhard is irrelevant. The multiple appears not to have a beginning; it either emanates from the uniting of the divine being or it is eternal. In either case it is necessary. Another immediate theological consequence of Teilhard's concept of creative union is his view of divine action. His view is very similar to that of Wiles in that there is a difficulty in affirming specific divine acts. Instead, there is one single conserving action, which conflates creation and Providence. This latter consequence ties in nicely with the eternal and necessary nature of the multiple which we have argued for. For Teilhard, there are apparently a number of constraints upon divine action, in particular the fact that God cannot create wholes or individual entities. God can only create through a unifying action in historical process, not because this is a contingent choice, but because this is a necessary limitation. This seems to imply that the God-world relationship has some contrastive properties, where this necessary divine limitation would agree with the consequences of panpsychism as we noted in the previous chapter, and with some of the properties of the multiple.

(ii) On a contrastive understanding of God and the world, an attenuated, de-divinised understanding of the divine nature or divine action is accompanied by a divinised world process, and there are certainly hints of this in Teilhard's deliberations on the evil associated with the multiple. We have already noted that Teilhard may well not have intentionally imbued the multiple with the characteristics of moral evil, but rather simply identified it as the source of physical evil. If this is the case then this explains why physical evil is unavoidable within the natural order, because the multiple is uncreated and because God can only create through degrees of unification. Regardless, there are definite symptoms of moral evil within the natural order, namely the necessary link between creation and redemption and the language of active struggle between God and the multiple. Where does this language stem from? It is a consequence of Teilhard's contrastive scheme in that his failure to secure the divine sovereignty, and so the contingent and created nature of the



multiple, means that a weakened God is confronted by a Herculean multiple. The multiple having been granted semi-divine power, it is capable of resisting the attenuated divine will, and as such is capable of evil. Unsurprisingly, this means that perforce one looks askance on matter, and so unconscious matter must be jettisoned at the Eschaton. More importantly, it also explains the orthogenetic and yet groping nature of evolution in Teilhard's thought. If his scheme is contrastive, and so exhibiting the symptoms of reflexive pantheism then this apparently contradictory scheme actually makes more sense. Only that which we regard as orthogenesis *is* evolution or progress *towards* greater unification, and groping is the morally dubious (un)conscious struggle *against* evolution and progress. In turn, this latter tendency can only arise because radial energy represents the power to resist the attenuated divine lure of Omega. If this interpretation is accurate, then evolution is more than a biological process; it is the movement towards the good, towards unity and the divine unity. In summary, then, evolution is the flight from evil towards divine unity; evolution is the redemption of the multiple.

(iii) Although Teilhard has much to say on the metaphysics of creation and the idea of God as Creator, it is clear that Teilhard's focus is very much on Christ, and in particular on the ever-greater Christ. This comes out loud and clear in his answer to the question of *cur Deus homo?* Teilhard's scheme is very close to our grammar of createdness in the manner in which he reinterprets Christology, Soteriology and Hamartiology from an eschatological perspective. Like Gunton, Teilhard views sin as that which derails the eschatology and ultimate perfection of the natural order. Therefore, redemption must represent that which enables that perfection to occur. Sin, or moral evil, is that which fights against this eschatology. Furthermore, both Teilhard and Gunton affirm the Scotist argument that the Incarnation would occur even without the need for redemption. As an accompanying motif to this point, both Teilhard and Gunton strenuously avoid any suggestion of an interventionist Incarnation. Both see this as an intensified and particular presence, or enfleshment, of the Word of God within the natural order. However, there are some differences, and these centre on three different points. First, we have a differing perception of

what sin and moral evil consists of, second, the connection between Atonement and redemption and third, specific views of how the eschatological perfection of the natural order is to be achieved. Let us deal with these in turn.

Teilhard seems to regard evil and suffering as integral to the natural order, as a consequence of incomplete unity. Therefore, a non-redemptive Incarnation would seem unlikely. Gunton on the other hand is more concerned to link pain, dissolution and death to the false eschatology which sin introduces into the world. In other words, he is concerned to avoid conflating creation and Fall. Second, although both authors are keen to understand the Incarnation in an Irenaean fashion - as integral to eschatology – there is a difference in how they perceive redemption to occur. Teilhard never refers to the Incarnation as a substitutionary Atonement for human sin. Redemption is not restorative in relation to human life. It is rather a re-enabling, or perhaps merely a guarantee of evolutionary progress.<sup>105</sup> In fact, it seems that the life of Christ is only related to humanity in an *exemplary* sense. The earthly life of Christ essentially quells the human disbelief in our contribution to evolution. Christ *represents* a proleptic albeit less evolved form of the unity of Omega. Third and most significantly, for Teilhard the Incarnation and the eschatological perfection of the created order are evolutionary possibilities and evolutionary goals. This is most certainly not the case for Gunton. The difference here is fundamentally one of divine action and creaturely possibility. For Gunton, both the Incarnation and the Eschaton are creaturely possibilities, but only through a divine initiative. This sense of divine initiative, and indeed divine action as a whole, seems attenuated and often absent in Teilhard's thought. For Teilhard the Incarnation is an evolutionary possibility; understood in eschatological terms, this worryingly means that evolution has no natural end, but only a divine one. Its goal is Christ-Omega. The created process of evolution now has the divine capacity to bring about the personal presence of the divine, and the perfection of the natural order.

---

<sup>105</sup> Dai Sil Kim-Gibson, 'Irenaeus of Lyons and Teilhard de Chardin: A Comparative Study of "Recapitulation" and "Omega"', *Journal of Ecumenical Studies*, 13:1 (1976), 69-93, (citation, 90-91)

(iv) To clarify the significance of this third point, let us backtrack and say a little more about the second point. It seems clear that Teilhard is insistent on the necessity of the divine and human natures in the person of Jesus Christ, if the Incarnation is to be at all redemptive. The reason for this lies in the exemplary nature of the life of Christ, and the continuing Christic presence within evolution as a goad and inspiration for human evolution. But there is a real sense in which it appears that this Christic presence is indeed all that is required. It must be remembered that the life of Christ in Gunton's theology, as in most traditional christologies, involves the language of struggle, against the powers of evil, temptation and human frailty. This seems to be missing in Teilhard's theology. The language of struggle occurs it seems only in relation to the overcoming of the multiple, and we have already had occasion to mention the difficulties associated in taking this seriously. The emphasis on the divine nature of Christ is therefore seemingly biased towards the divine affinity for increased unity and mediation, rather than on overcoming the capacity for human sin to impede evolution. The Second Person of the Trinity does not have to act to enable evolution, but instead only be present. We might go further and argue that not only is Christ not actively redemptive but he could not be so. He must simply stimulate secondary (i.e. human) causality through his example. Now, the difficulty which Teilhard's scheme then presents is to understand the relationship between the evil of the multiple and the goodness of evolutionary unification. If, as appears to be the case, there is very little divine action within redemption, then evolution would appear to be the *self*-redeeming function of the multiple when confronted and inspired by the goodness and unity of God. Redemption is the work of evolution and not God.

(v) Redemption is of course only one aspect of Teilhard's thought on the Incarnation. One of the most profound aspects of his theology is his vision of the Incarnation as a sign of the constant presence of the divine within world process. His vision is one of the strongest rebuttals of Deism that one can imagine, and has much to contribute to theological comments on ecology and environmental awareness. It is also strengthened by founding the possibility of this divine presence in the divine transcendence. However, we would argue that Teilhard's treatment of the divine

presence is more akin to a panentheistic impersonal presence, with the consequence that the Incarnation is an intensification of just such an impersonal presence. As Gunton has shown, this detracts from the particularity of the Incarnation as *this* man Jesus Christ born at *this* time to *this* mother. There is no coincidence that Gunton can only affirm this particularity through the sovereign divine initiative and action that brings about the Incarnation. There are signs of this in Teilhard's theology to be sure, but the lack of particularity can be traced back to a lack of divine initiative in the Incarnation. Teilhard's description of the Incarnation as a partial immersion, and the body of Christ as a spatial and temporal point of divine presence might appear to suggest something akin to the *extra Calvinisticum*, but is in reality more like the price to be paid for a lack of particularity. It is not that we are to understand the Incarnation as a partial event, but to understand *its bodily aspect* as Jesus of Nazareth as a partial event. The body of Christ is co-extensive with *all* matter. The Incarnation "is not a process which exhausts itself in a single and unique historical person."<sup>106</sup> More to the point, it is of course ongoing and in so doing, *it divinises the world*. There is a danger here of such a generalised christic presence that outright Pantheism threatens. Within the grammar of createdness, this is avoided by emphasising the divine initiative in the Incarnation, and also the delimiting action of the Spirit to maintain borders, including those between God and humanity in the Incarnation.

(vi) Teilhard's vision of the Incarnation lacks particularity, because it lacks divine action. This is founded on the evolutionary nature of the Incarnation. Teilhard rightly affirms that there must be a degree of preparedness within the cosmos for the Incarnation, namely the existence of *Homo sapiens sapiens*, and in terms of the formation of Mary. This accords with the concept of the naturalness of the Incarnation as we find it in the grammar of createdness, which motif prevents an interventionist or deist interpretation of the Incarnation. However, in our grammar this preparedness is itself the result of a sovereign enabling divine action-in-relation and the Incarnation requires a divine initiative in order to occur. In Teilhard's

---

<sup>106</sup> EB, 218. The Incarnation is therefore not simply the moment of the incarnation of the Word in Jesus Christ, it is rather "the ongoing process of God's self-immersion in the world in order that everything might become united to God." (Charlton, *The Incarnation*, 1)

scheme, the existence of the human species etc. cannot really be regarded as the result of divine action and it also appears to be a *sufficient* condition for the Incarnation. This is not to say that Teilhard cannot affirm either the divinity or humanity of Christ in this scheme, as this is a constant theme in his work. But on the other hand, the consequence of Teilhard's scheme is that evolution is thereby gifted with the capacity to produce an incarnate divine presence in the world. This suggests both an essentially passive divinity within the evolutionary process, and consequently the enhanced agency of the evolutionary process to the extent that it now contains the initiative required for the Incarnation.

The only sense in which Teilhard's seems to accept a divine initiative in preparing the way for the Incarnation lies in the Immaculate Conception. This provides an interesting paradox; Teilhard seems quite comfortable to ignore divine initiative and divine action with regard to the Incarnation and yet God must act to 'purify' matter of its moral ambiguity in the form of the Virgin Mary if the Incarnation is to become 'visible'. Leaving aside this rather abrupt, almost deistic, creative input at this juncture, Teilhard's views of matter here are problematic on two counts. First, the possibility of the Incarnation seems to rest solely in the improvement of the revelatory power of matter, as if it is merely its recalcitrance that prevents it from bringing about the Incarnation. Note that there is no divine initiative *once* purified matter takes the form of Mary. This purified matter engenders the Incarnation, and so the particularity of the Incarnation rests not on a divine initiative in the conception of Jesus Christ, but rather in the Immaculate Conception. For those who do not hold to this doctrine, because of the suggestion that the humanity of Jesus must ultimately represent a break with the creaturely, then Teilhard's scheme loses all sense of particularity and divine control.

(vii) We might be precise in what we mean by a lack of divine initiative in the Incarnation. Because Teilhard does not perhaps sufficiently affirm the divine initiative for the Incarnation, it comes as no surprise that his scheme is in this regard insufficiently trinitarian. It is to be remembered that in Gunton's thought the

Incarnation is willed by the Father, and enabled by the Spirit. For Teilhard, there is very little suggestion of the presence of the Spirit within the earthly ministry of Christ, and certainly even less suggestion of pneumatological action in his conception. Moreover, we have just seen that the extent to which it can be said that the Father actively wills the specific conditions needed for the Incarnation of his Son is greatly diminished. On such an understanding binitarianism beckons. One of the other consequences of a more trinitarian scheme has some particular bearing on the capacity for evolutionary process to bring about the Incarnation. According to Gunton, an emphasis on specifically pneumatological action within the Incarnation is to safeguard against a Pantheism in which the divine nature of Christ can be affirmed without threatening to obliterate the humanity of Christ. In other words, there is a delimiting action. Is there an equivalent need in Teilhard's? No, in fact the opposite is required. Teilhard wants to affirm the true divinity and humanity of Christ, but how can one determine the degree of divinity which evolution can reveal? Teilhard's language suggests that he is aware of this issue, and so he affirms the requisite divine formation of the purity of Mary if evolution is to bring forth the Christ. But if Teilhard is consistent in maintaining that God does not actively influence secondary causality, then both the required purity of Mary and the Incarnation itself must be a result of evolution. The point is that Teilhard seems aware of the potential of his scheme for lessening divine input into the Incarnation, but his scheme as it stands does not allow him to consistently counter this. Furthermore, the fact that what is required in terms of divine action for the Incarnation is a purity, is suggestive of the devaluing of the created order which we noted in his metaphysics. The evil that is disunity must somehow be countered if the essential goodness of divine unity is to show through in the Incarnation.



*Conclusion*

What can we say in conclusion to our critique of Teilhard in this chapter? The most significant observation to be made is that the suspicion of reflexive Pantheism that we noted in the previous chapter has only been confirmed by what we have found here. Divine action has become so attenuated that the divine purposes can be thwarted by the multiple as well as by the more centred aspects of the natural order. This requires that the multiple be redeemed through unification. This is apparently the major function of the Incarnation, which is in turn brought about naturally through evolutionary unification of the multiple. Coupled with Teilhard's view that a fulfilled evolution represents a fulfilled cosmic destiny, then the evolutionary process begins to take on the role normally attributed to divine action. Evolutionary development is required and sufficient for the Incarnation, and for the attainment of the destiny of the natural order. Finally, because both of these are redemptive, then we can say that evolution is the self-redeeming activity of the multiple, both in attaining degrees of unity/purity such as the Immaculate Conception, and in bringing about the Incarnation.

## Chapter 7: Evolution and Theology (II) - Evolution and the Continuing Presence of Christ

### *Introduction*

In the previous chapter, we noted that for Teilhard the Incarnation is to be understood in terms of a concentration or intensifying of an ongoing christological immanence. Now we must move on to map out Teilhard's understanding of this immanence as it heads towards Omega through evolution. Indeed, he argues that the presence of Christ in the present stage of evolution can only be conceived of in light of its consummation at Omega.<sup>1</sup> The point is this; Christ will eventually, through evolution, become Omega, the centre of evolution's convergence. But Christ *cannot* be the *final* centre of evolutionary convergence if he is not *already* the *present* centre of evolutionary convergence. It is this realisation that shapes Teilhard's understanding of the continuing presence of Christ within the evolutionary process. We also noted in the last chapter that Teilhard's evolutionary Christology lacked particularity and that overall the createdness of evolution was threatened by the capacity of the process for generating the Incarnation and the Eschaton. As the extent of this christic presence and its relationship with evolution becomes clearer, we must see whether these theological difficulties remain.

### *(A) Christ as the Centre of Evolution*

(i) Teilhard's concern to position Christ at the very heart of the evolutionary process leads to a breathtakingly beautiful, but also highly complex vision; Christ is not only present in evolution, he is omnipresent. If Christ is to be the nexus of divine-creaturely union at Omega, he must already be the universal centre of evolution.<sup>2</sup> This is the Universal Christ, "Christ the organic centre of the entire universe."<sup>3</sup> Christ

---

<sup>1</sup> CE, 87

<sup>2</sup> Ibid. 71. C.f. SC, 57 and 59

<sup>3</sup> SC, 14

is the centre on which every natural development is ultimately physically dependent.<sup>4</sup> But how does Christ become this living cosmic centre? He becomes so through the resurrection. The resurrection becomes a truly cosmic event;

It marks Christ's effective assumption of his function as the universal centre. Until that time, he was present in all things as a soul that is painfully gathering together its embryonic elements. Now he radiates over the whole universe as a consciousness and activity fully in control of themselves. After being baptised into the world, he has risen up from it.<sup>5</sup>

Just as a cell in a living organism can become preponderant in that organism, so can the humanity of Christ, at the resurrection, acquire "a universal morphological function."<sup>6</sup> Teilhard also sees the universal centrality of Christ in a more anthropological fashion, in terms of psychism. If humanity were the point of precipitation of the world's conscious power, then Christ as the head of humanity would be universal as the psychic pole of creation. Christ becomes integral to, and integrated into, the evolutionary process.<sup>7</sup> From these foundations a number of other important ideas in Teilhard's scheme can be seen to be derived. Let us briefly address some of these as they relate to evolution.

(ii) The Universal Christ is a key motif in Teilhard's thought, but it is always to be understood in the context of the progress of evolution. This signifies a relationship with the concept of divine action. For Teilhard, the divine omnipresence within evolution must be understood as *an omnipresence of action*; God's preserving and creating action.<sup>8</sup> There is a connection here with Omega, because Omega represents the (eschatological) universality of Christ. Therefore, Christ's present action must be seen as an "*omnipresence of transformation*."<sup>9</sup> But how is it that the resurrection

---

<sup>4</sup> Ibid. 14 and HM, 205

<sup>5</sup> SC, 63-4

<sup>6</sup> CE, 41

<sup>7</sup> Ibid. 42. Teilhard is not always consistent with this terminology. Occasionally he equates the Universal Christ not with the nature of Christ as a universal element, but as the culmination of this universality at Omega. In other words, the Universal Christ is the final consummation of the divine presence within evolution. (e.g. HM, 95 and CE, 71)

<sup>8</sup> MD, 111. Creative divine action is of course uniting divine action; this is an important point as this is not necessarily an active role despite Teilhard's language at this point.

<sup>9</sup> HM, 94

body of Christ can influence and transform the entire cosmos? This entails the cosmic extent of the Incarnation - indeed the whole point of the concept of the Universal Christ is to show that "the Incarnation is an act co-extensive with the duration of the world."<sup>10</sup> For Teilhard, this is demonstrated in the Eucharist, whereby the power of Christ is transmitted to a cosmic extent<sup>11</sup>, and of which the Eucharist is a sign.<sup>12</sup> However, the Eucharist reveals not a static divine presence, but a process of universal transubstantiation.<sup>13</sup> For Teilhard, "the matter of the sacrament is the world, throughout which there spreads, so to complete itself, the superhuman presence of the universal Christ."<sup>14</sup> The Mass therefore represents the process of evolution.<sup>15</sup> Evolution is therefore the means by which "the whole of nature is slowly and irresistibly undergoing the supreme consecration."<sup>16</sup> Teilhard makes a distinction between the Universal Christ, as a cosmic element *within* evolution, and the Super Christ, and Christ the Evolver, as this power *behind* evolution.<sup>17</sup> The presence of Christ in evolution is therefore cosmic, transformative and *evolving*. This equates with the forward axis of evolution. The divine omnipresence is therefore an omnipresence of christification.<sup>18</sup> As such, the Incarnation is *both* redemptive *and* also integral to evolutionary progress and the attainment of Omega.<sup>19</sup>

(iii) Teilhard sees this Christological model as the only viable alternative to a juridical model, where the Incarnation occurs simply for redemptive reasons. Instead, the christic immanence within the natural order is intrinsic to evolution and the

---

<sup>10</sup> SC, 64

<sup>11</sup> Ibid. 64

<sup>12</sup> Mooney, *Teilhard de Chardin*, 81

<sup>13</sup> HM, 94

<sup>14</sup> SC, 65. C.f. CE, 74

<sup>15</sup> EB, 224

<sup>16</sup> CE, 74. Young sees this as a sign of the intrinsic value of the created order and of matter itself. (Stewart, *Nature in Grace*, 193). However, as the world is itself converted into the divine milieu through the Eucharist, this says little of the value of its pre-transformed state.

<sup>17</sup> SC, 165-7. There are again some ambiguities. Teilhard can also describe the Universal Christ as the Christ of Evolution. (CE, 95) This is to be expected, in one sense. There is after all only one Christ, and Christ the Evolver must be the Universal Christ. As Teilhard puts it, the Super Christ is one and the same Christ. (SC, 164)

<sup>18</sup> MD, 112. C.f. Bravo, *Christ in the Thought of Teilhard de Chardin*, 45

<sup>19</sup> CE, 146-7. This is the work of Christ the Evolver. (Ibid. 147) It is worth noting again that Teilhard is unable to remove redemptive terminology from this ongoing development of the created order. The threat of the multiple is still very real.

attainment of Omega. In this universe "[G]od cannot appear as prime mover (ahead) without first becoming incarnate and without redeeming".<sup>20</sup> Teilhard's Scotist position is therefore intimately connected with his doctrine of creation. God cannot create an evolved whole, and so Christ-Omega must be subjected to an evolutionary intensification and unification if it is to be achieved.<sup>21</sup> Redemption then becomes the justification of humanity *in the same act* of super-creating the universe through the evolutionary process.<sup>22</sup> The juridical model quite simply ignores the Universal Christ,<sup>23</sup> who is essential for Omega.<sup>24</sup> But the juridical model also has what we might call a moral weakness for Teilhard, and this again seems to stem from a perceived weakness in its articulation of the concept of the Universal Christ. If the Universal Christ is the presence of Christ-Omega, then Christ is already in a sense Omega. More specifically his kingship is already manifest and real. He is not just proclaimed king; he already is king.<sup>25</sup> Christ, as the Universal Christ, is king.<sup>26</sup>

(iv) The point is quite simply that the juridical model cannot affirm the kingship of Christ because it is essentially an extrinsicist position. In the same vein, this is why Teilhard can refer the mediatorial role of Christ to the Universal Christ.<sup>27</sup> Christ is yet still the mediator between God and creation. But as Christ's presence is cosmic in extent it must be extended *throughout cosmic history*. Christ must always be viewed from and as Omega. However, it is important to note that for Teilhard this vision can never be allowed to render the man Jesus Christ superfluous. Indeed, the Universal Christ is an expansion of the heart of Christ.<sup>28</sup> This vision *needs* the human Jesus;

---

<sup>20</sup> AE, 163

<sup>21</sup> If Christ is to be universal (i.e. universalised, as Omega), he must finally and gradually be consummated from all being. (SC, 16)

<sup>22</sup> AE, 264. This Christic energy amorizes the cosmos, signifying an identification of roles between Omega and Christ. (AE, 266)

<sup>23</sup> SC, 19

<sup>24</sup> Ibid. 166, HE, 91 and CE, 15

<sup>25</sup> CE, 89. C.f. TF, 99

<sup>26</sup> HE, 92

<sup>27</sup> CE, 179. This is a developed position. In his early work Teilhard simply identifies Christ as the term of this relationship. (WW, 297)

<sup>28</sup> TF, 99

If it is indeed true that it is through Christ-Omega that the universe in movement holds together, then, correspondingly, it is from his concrete germ, the Man of Nazareth, that Christ-Omega (both theoretically and historically) derives his whole consistence, as a hard experiential fact.<sup>29</sup>

Therefore the entire christological vision must incorporate the whole of Christ, from his pre-incarnate immanence, through his redeeming life, death and resurrection, to his assumption of the position of Universal Christ, his present immanence and action as the Super Christ (Christ the Evolver) and finally through the development of his mystical body until we reach the eminence of Christ-Omega. This is all one Christ, one simultaneous vision and movement – this is the total Christ.<sup>30</sup> Overall, the point is quite clear. To understand the world from the perspective of Christ-Omega is to escape the juridical imagery that Teilhard is so opposed to. If Christ is Omega, then he literally and physically fills and consummates all things, and so everything is stamped with his character and animated towards his direction.<sup>31</sup> We can now move on to discuss how this presence of Christ evolves and itself causes evolution, through a transformative divine action.

### *(B) Evolution and the Evolving Presence of Christ*

In the previous subsection we noted that Teilhard insists that in his cosmic evolutionary vision Christ is still firmly and intimately involved within convergent evolution. Indeed, he is now a leader element guiding human evolution towards Omega and the fulfilment of the Incarnation. Human evolution must be guided in this way partly because of sin, but also because the Incarnation is intrinsic to the evolutionary created order. It is vital for Omega and the culmination of being. This dual emphasis on culminating and current christological presence leads to what Teilhard describes as christification, or the intensifying presence of Christ within evolution and the cosmos.

---

<sup>29</sup> CE, 181

<sup>30</sup> Ibid. 181. C.f. TF, 198-9

<sup>31</sup> SC, 166



(i) In the light of the nature of Christ as Omega, christification becomes much more specific. To understand this properly, let us look at Teilhard's threefold conception of this evolution;

1. Tangibility in the experiential order, as the result of Christ Jesus's historical entry (by his birth) into the very process of Evolution.
2. Expansibility in the cosmic order, conferred on the Christic Centre by the operative power of 'resurrection'.
3. And finally, assimilative power, in the organic order, potentially integrating the totality of the human race in the unity of a single 'body'.<sup>32</sup>

It is the second and third parts of this scheme that concern us here. Teilhard's point is that the culmination of evolution is the meeting place between God (as Christ) become truly cosmic and evolution (as ultra-evolution) become truly personal.<sup>33</sup> However, these points are connected and indeed identical, because since the resurrection, evolution has become the evolution of the mystical body of Christ.

(ii) At the heart of Teilhard's position is the *naturalness* of this christological evolution. Because Christ is attaining the true universality of Omega, then all action throughout the cosmos contributes to the building up of his body.<sup>34</sup> As such, this is the only action occurring in the cosmos today.<sup>35</sup> The growth of Christ is the interpretation of evolution in the language of the mystical body.<sup>36</sup> The evolutionary process must always be seen from the double perspective of cosmic convergence and Christic emergence.<sup>37</sup> Teilhard eventually derives the term christogenesis to describe the second part of this co-evolution, although the concept occurs from the very beginning of his work. For Teilhard, "creation is a process which reaches completion only as the establishing of a universal divine incarnation...cosmogenesis becomes

---

<sup>32</sup> HM, 89

<sup>33</sup> AE, 381

<sup>34</sup> SC, 67 and HU, 81. This is further evidence for our contention that Teilhard identifies evolution with orthogenesis; i.e. with progression itself.

<sup>35</sup> CE, 32 and CE, 74

<sup>36</sup> WW, 174. In his early work Teilhard can describe this body in specifically organic terms, and indeed as the mother of organisms. (WW, 51) In WW it is specifically the incorporation of the faithful and the saints which contributes to the body of Christ. And precisely because it is an organism, it must evolve. (Ibid. 49-50)

<sup>37</sup> HM, 82

transformed into Christogenesis."<sup>38</sup> Teilhard described his vision very early on as one where "everything is animated so as to become the divino-human organised action of the incarnate Christ."<sup>39</sup> In fact this identification between cosmogenesis and christogenesis is such that Teilhard can rather worryingly refer to evolution as holy, sacred and even as divinity.<sup>40</sup> Indeed we must *love* evolution, precisely because cosmogenesis, as christogenesis, is leading to the formation of a person.<sup>41</sup> Christ is not yet fully complete, and requires evolution for this.<sup>42</sup>

(iii) Convergent evolution is therefore a cosmogenesis, manifest as the progression from biogenesis to noogenesis and finally christogenesis.<sup>43</sup> Each of these is a natural term, as Teilhard puts it. Christogenesis is the sublimation of cosmogenesis.<sup>44</sup> The Incarnation and its evolutionary fulfilment are part of the order of things.<sup>45</sup> As Bravo puts it, christogenesis and genesis of the ultrahuman are virtually interchangeable.<sup>46</sup> In other words;

Until the Word became incarnate, what was constructed was that which could be divinized; since then, through the joint action of Christ and the world, what is divine is being built up.<sup>47</sup>

Not only does Christ gain from this mutual and indeed identical development; Teilhard can go so far as to say that through his ceaseless animation of these processes, Christ is actually *nourished* by these world processes as he divinises them.<sup>48</sup> It is precisely this then that makes the fulfilment of Christ and the world *mutual*.<sup>49</sup>

<sup>38</sup> Lyons, *The Cosmic Christ*, 177-8

<sup>39</sup> *Journal*, entry 17.8.1916, 213

<sup>40</sup> HU, 133, WW, 17 and p78. Thus it is that Teilhard can argue that evolution, as the means of escape from multiplicity, is "the hand of God gathering us back to himself." (SC, 213)

<sup>41</sup> CE, 184. C.f. TF, 159

<sup>42</sup> Bravo, *Christ in the Thought of Teilhard de Chardin*, 66

<sup>43</sup> HM, 94

<sup>44</sup> TF, 99

<sup>45</sup> For Teilhard "the genesis of the kingdom of God, the incarnation, will not occur as the sudden irruption of something supernatural into a degraded world ruled by demons. It will rather be the ascent of the earth and its metamorphosis into a reality which has hitherto hardly been recognized." (EB, 218)

<sup>46</sup> Bravo, *Christ in the Thought of Teilhard de Chardin*, 71. C.f. HU, 152-3

<sup>47</sup> *Ibid.* 72

<sup>48</sup> SC, 59

<sup>49</sup> HU, 90

(iv) Currently, evolution of course takes the form of human cultural evolution through love-energy, and so we find that it is our evolution that is contributing to the formation of the mystical body of Christ.<sup>50</sup> Our contribution to evolution is therefore coterminous with our contribution to Christ-Omega;

The greater man becomes, the more humanity becomes united, with consciousness of, and mastery of, its potentialities, the more beautiful creation will be, the more perfect adoration will become, and the more Christ will find, for mystical extensions, a body worthy of resurrection.<sup>51</sup>

Teilhard sees the human contribution to evolution in all sources of human unification. Here we can only briefly mention one of these – religion. For Teilhard, all religions have an evolutionary significance.<sup>52</sup> Indeed, the measure of a religion is determined by its contribution to evolutionary activation.<sup>53</sup> Specifically religions contribute to phylogenesis, the further collectivisation of humanity which evolution demands.<sup>54</sup> Religion achieves this by giving a form to “the free psychic energy of the world.”<sup>55</sup> This is congruent with Teilhard’s reflections on the nature of Omega; humanity must believe that a future is possible if evolution is to proceed. However, Teilhard gives priority to that form of religious collectivisation that is most closely associated with Christ-Omega; the Church.<sup>56</sup> Therefore, to be precise, human evolution cannot occur unless we can place the face of Christ upon Omega. It is important to remember that for Teilhard, evolution is now contingent upon human perception insofar as this affects our willingness to evolve. It is faith in our own

---

<sup>50</sup> MD, 136. Therefore the threefold pattern of cosmogenesis must be elaborated upon with the strictly human contribution;

“Cosmos = cosmogenesis = biogenesis = individual = anthropogenesis = collective anthropogenesis = Christogenesis.” (TF, 156, n4)

<sup>51</sup> MD, 151. “It is through the collaboration which He stimulates in us that Christ, starting from *all* created things, is consummated and attains his plenitude.” (Ibid. 33-4)

<sup>52</sup> HM, 90

<sup>53</sup> Ibid. 97

<sup>54</sup> AE, 239

<sup>55</sup> SC, 104

<sup>56</sup> For instance, Christian morality becomes significant precisely because under these circumstances it is a reinforcer of evolution. (CE, 92). C.f. Mooney, *Teilhard de Chardin*, 151. This concept of the evolutionary significance of Christian practice or doctrine is not unique to Teilhard. For instance, Alfred Barry argues that Christian doctrine is an extension of evolution because of its references to the final defeat of evil and a future *post mortem* existence. (Alfred Barry, *Some Lights of Science on the Faith* (London: Longmans, Green and Co., 1892), 128)

vigour, as well as the transcendence of God, that enables us to combat chance and impose our own order.<sup>57</sup> The *concepts* of the Super Christ and the Universal Christ are the requisite spurs for the human belief that fuels evolution.<sup>58</sup> Nonetheless, in both cases the context appears to be a belief not only in the existence of Omega as Christ, but also in the current presence and formation of the (body of) Christ within the evolutionary process. The Church is at the forefront of biogenesis, then, because there is an awareness or consciousness of a relationship with the transcendent pole of convergence.<sup>59</sup> The Church is the very heart of human socialisation; it is an ultra-socialisation that animates the energies of the noosphere.<sup>60</sup> Teilhard likens the evolutionary role or position of the Church as the middle layer of the evolutionary cone, between the transcendent God and generic human/cosmic co-evolution.<sup>61</sup> The Church is “the central axis of universal convergence, and the exact meeting-point that springs up between the universe and Omega Point.”<sup>62</sup> Christ is the physical centre for the world because he is the physical centre for the Church.<sup>63</sup> We might go so far as to say that this *is* christogenesis.<sup>64</sup> As such, the Church is “the reflexively Christified portion of this world”.<sup>65</sup>

(v) Through evolution Christ’s mystical body becomes truly cosmic. Indeed, this occurs to such an extent that Teilhard can argue that in Christ we see not only the divine and human natures, but also a third nature – the cosmic.<sup>66</sup> The logic behind this is quite simple; Christ has a physical function, the leadership of evolution from

---

<sup>57</sup> MM, 235

<sup>58</sup> CE, 155 and SC, 164 respectively. Christ comes to show us that the effort required for future evolution is worth the price. (Stewart, *Nature in Grace*, 200)

<sup>59</sup> PH, 326. C.f. CE, 16 and 153, and Mooney, *Teilhard de Chardin*, 157. The notion of Christianity as the centre of evolution is not unique to Teilhard, and indeed occurs repeatedly in 19<sup>th</sup> Century discussion of evolution and theology. See for example George Henslow, *The Theory of Evolution and the Application of the Principles of Evolution to Religion* (London: MacMillan, 1873), 156

<sup>60</sup> TF, 191

<sup>61</sup> AE, 149

<sup>62</sup> TF, 192. At this point we should mention that Teilhard is referring specifically to the Roman Catholic Church when he refers to the Church in this manner. As Teilhard puts it, through Rome runs “the ascending axis of hominization.” (letter 7.10.1948, quoted in Mooney, *Teilhard de Chardin*, 159)

<sup>63</sup> Ibid. 167

<sup>64</sup> HM, 90. C.f. AE, 149

<sup>65</sup> TF, 191

<sup>66</sup> HM, 93

within, but this is cosmic in extent. Therefore Christ must have not only his divine nature, (otherwise he could not lead evolution), nor only a human nature (otherwise he could not be *in* evolution to lead it) but also a cosmic nature because of what the leadership of evolution entails.<sup>67</sup> Again this is something the juridical model fails to account for.<sup>68</sup> For Teilhard, this cosmic nature evolves as the mystical Christ evolves;<sup>69</sup>

The mystical Christ has not yet attained to his full growth; and therefore the same is true of the cosmic Christ.<sup>70</sup>

Moreover, as Lyons has argued, it is through his third nature that Christ acts as the mediator of creation.<sup>71</sup> As we noted earlier, for evolutionary unity to be completed, there must be an Incarnation.<sup>72</sup> Furthermore, for Teilhard, Christ is, and *must* be Omega, because only Christ can be the fulfilment of the created order. Only this can satisfy Teilhard's vision of Christian eschatology in an evolutionary context. Omega, the fulfilment of the body of Christ, requires an evolutionary perfection of the created order.<sup>73</sup> The Incarnation is the expression of God's desire (and need for?) his Son to be both God and man. But, according to Christian eschatology, Christ must be able to offer the perfected, evolved, world back to the Father, and so Christ must become Omega.<sup>74</sup> But, we have seen that Christ can *only evolve* into Omega. Therefore between the Incarnation and Omega, if Christ is to be understood to be central to the Christian faith, he must offer himself for worship and adoration *now*, as the cosmic, "evolutive" Christ.<sup>75</sup>

---

<sup>67</sup> WW, 252

<sup>68</sup> HM, 94

<sup>69</sup> WW, 59

<sup>70</sup> HU, 133

<sup>71</sup> Lyons, 199. Teilhard sees Christ-Omega as the mediating point for convergent evolution. (AE, 149) The third nature in Christ is that which evolves, therefore it is this third nature that gives Christ his mediating position between God and creation. For vigorous criticism of this see Mooney, *Teilhard de Chardin*, 179

<sup>72</sup> Lyons, *The Cosmic Christ*, 175-6

<sup>73</sup> HU, 152

<sup>74</sup> Smith, 'God and Evolutive Creation', 48

<sup>75</sup> de Lubac, *The Faith of Teilhard de Chardin*, 36-7. It seems, then, that the Universal Christ is Christ understood as a cosmic element, the Super Christ/Christ the Evolver is Christ as an active agent within evolution, and the Cosmic Christ is Christ understood as the one whose body is now being formed and as the one who is the final summit of this evolution (i.e. Omega.)

(vi) We can now finish off our description of Teilhard's evolutionary and christological scheme by discussing the culmination of evolution at Omega. For Teilhard, the cosmos and evolution culminate in the cosmic and mystical body of Christ.<sup>76</sup> It is at this point, when everything within the evolutionary process (including Christ) is completed, that we find the Parousia, the return of Christ.<sup>77</sup> The Parousia will occur at *the time of a cosmic capacity for total unity*.<sup>78</sup> This is coincident with the final point of human maturation.<sup>79</sup> Just as the Incarnation was contingent upon a certain degree of human cultural and biological evolution, so is the Parousia contingent upon the attainment of a certain threshold of human unification.<sup>80</sup> The supernatural requires the ultrahuman as preparation.<sup>81</sup> Therefore if we use language which is slightly more redolent of Omega, the Christic ego is the point towards which egos converge and find their fulfilment, and in so doing consummate the Christic ego.<sup>82</sup> This leads Teilhard to use rather unfortunate language in which he can argue that not only is Christ the Saviour, but he is also saved by evolution.<sup>83</sup> The point is simply to emphasise the dual nature of evolution as cosmic/anthropic and Christic. Indeed we must not forget how these converge on one another; the christic fulfilment of evolution is in fact *a magnification* of human convergence.<sup>84</sup> After all, the universe can only have one head.<sup>85</sup> Evolution has no strictly natural (i.e. created) end. This could only be achieved through tangential energy, and this is only a substratum for developments of radial energy.<sup>86</sup>

---

<sup>76</sup> WW, 175

<sup>77</sup> Bravo, *Christ in the Thought of Teilhard de Chardin*, 104

<sup>78</sup> SC, 84

<sup>79</sup> TF, 191. "La Parousie ne saurait se lever que sur une Humanité plus unie et plus consciente que celle qui nous entoure." (GB, 43)

<sup>80</sup> TF, 154-155. C.f. AE, 279. Note this is the Parousia of the one Christ. Hence Teilhard can refer to the Parousia of the Universal Christ. (SC, 127)

<sup>81</sup> AE, 279

<sup>82</sup> HM, 95

<sup>83</sup> Ibid. 92

<sup>84</sup> Ibid. 202-3

<sup>85</sup> SC, 165

<sup>86</sup> Mooney, *Teilhard de Chardin*, 76



(vii) Christ is the constant within both cosmogenesis and christogenesis. The end result is what Teilhard refers to as the mysterious compound formed from Christ and the universe.<sup>87</sup> Hence, Christ is *a synthesis* of cosmos and creator.<sup>88</sup> At this point, Christ will “consummate universal unification by giving himself, in his complete and adult Body, with a finally satisfied capacity for union, to the embrace of the Godhead.”<sup>89</sup> Just as the world came from God, so it shall return enriched, purified and perfected to God.<sup>90</sup> Finally, then, we have the very last stage of evolution and unification; the Pleroma (lit. fullness) – “the organic complex of God and world.”<sup>91</sup> The Pleroma is supreme consciousness and complexity, and Christ is its organic principle and centre.<sup>92</sup> Teilhard realises the potential for pantheistic interpretations of his conception, and he is eager to head these off. The Pleroma is a fullness in which there is unity and fusion without confusion. Moreover, the Pleroma adds nothing essential to God, although it will be “a sort of triumph and generalisation of being.”<sup>93</sup> It is important to understand the centrality of Christ within this process. In his mystical language, Teilhard can argue that Christ is to be the fullness of created being, personal being and finally all being, within his mystical body.<sup>94</sup> For Teilhard, then, christogenesis, pleromization and creative union are all synonymous terms.<sup>95</sup>

---

<sup>87</sup> SC, 17

<sup>88</sup> HM, 201. Teilhard identifies this synthesis more precisely as the Universal Christ, understood (presumably) as the fully evolved Cosmic Christ. (CE, 126)

<sup>89</sup> SC, 85

<sup>90</sup> WW, 81

<sup>91</sup> SC, 85. TF, 97. Here Teilhard can also refer rather confusingly to the Pleroma itself as the synthesis of God and cosmos. The solution would seem to lie in the persistence of Christ as the centre of the Pleroma, just as he is the universal centre.

<sup>92</sup> SC, 166 and CE, 16

<sup>93</sup> MD, 111. C.f. WW, 297. Teilhard can also perceive the Pleroma to be making a vitally necessary contribution to God. Mooney argues that this apparent vacillation is an attempt to get away from the idea of the absolute gratuity of the created order, and the act of creation. (Mooney, *Teilhard de Chardin*, 175) For a similar position, see Charlton, ‘The Incarnation’, 97. Charlton makes the interesting observation that perhaps Teilhard is arguing for parallels between Trinitization (and so creation) and Pleromization. (Ibid. 117) This might imply a symmetrical eschatology.

<sup>94</sup> HU, 146-7

<sup>95</sup> Mooney, *Teilhard de Chardin*, 177

*(C) Critique*

(i) Whilst it is true that Teilhard's vision of the christic presence within evolution seems to lose the identity of Jesus of Nazareth, the complexity of this presence cannot be doubted. The heart of this vision is the Universal Christ, who is the Risen Christ in the form of a cosmic organic centrality. However, precisely because the Universal Christ is the Risen Christ, then it would appear that Teilhard eschews the doctrine of the Ascension. After the Resurrection we find that any particularity within the Incarnation is lost within the vision of Christ as the Universal Centre and the Super-Christ. The incarnate one has become the immanent one.<sup>96</sup> The Resurrection has brought about an evolutionary shift that has broken the spatiotemporal boundaries of Jesus of Nazareth, and apparently the boundaries between God and creation.<sup>97</sup> Using language reminiscent of Panentheism, the Resurrection seems to have enabled Christ to become the mind of the world, by overcoming his bodily limitations. Evolution will now make the world into Christ's body. Why then would Teilhard so vigorously eschew the Ascension? The answer lies in Farrow's observation that Teilhard's theology is effectively unitarian.<sup>98</sup>

In the Church's affirmation of the bodily withdrawal of the Risen Christ at the Ascension, there has been a concomitant affirmation of Pentecost, the work of the Spirit. The Spirit is the divine Person who relates us to Christ and for Gunton is primarily the agent of present tense action-in-relation and the perfecting of the natural order. Teilhard is concerned, as Gunton is, to found the perfecting of the world in Christ, but Teilhard is unable to affirm the role of the Spirit in the perfection of the creature. Hence, in order to derive the notion of a current and all-pervasive perfecting of the created order, Teilhard must argue that Christ must still be bodily (omni)present, as a cosmic centre and active through this omnipresence. Therefore Teilhard is replacing Pneumatology with Christology. We might say that the Super-Christ replaces the action, and the Universal Christ replaces the relation in

---

<sup>96</sup> Farrow, *Ascension and Ecclesia*, 205

<sup>97</sup> Farrow argues that Teilhard's view of the Ascension is a spatial and temporal shift; spatially he has become ubiquitous and temporally he has achieved an advance into the future. (Ibid. 204-205)

<sup>98</sup> Ibid. 206

pneumatological action-in-relation. Without a delimiting and particularising action of the Spirit, the Incarnation loses its boundaries as well as divine initiative.

(ii) What are the consequences of the ongoing and increasing presence within evolution, for the createdness of the process? If Teilhard's understanding of the Eucharist is representative, then the signs are not favourable. The difficulty lies in the fact that the Roman Catholic concept of Eucharist involves transubstantiation, which is a transformation of the substantial nature or essence of the elements into the body and blood of Christ. The problem then for a global or universal transformation is that the universe would be replaced with the divine. Is this really what Teilhard wants to say? He certainly seems to suggest so when he argues that our struggle for evolutionary convergence (which is a transubstantiation) is a struggle towards our "point of annihilation".<sup>99</sup> This is also a conclusion to which we shall be drawn by our examination of other aspects of Teilhard's theology from this chapter. Nonetheless, Teilhard is consistent in his rebuttal of such Pantheism. One way of interpreting this would be to remember that for Teilhard, an increase in unity is an increase in reality, and so it is possible that he is interpreting christification not as a replacement of creaturely reality, but instead as an attainment of *some* reality, i.e. Christic reality. That which is evolving is therefore only real insofar as it converges gradually on Omega, and attains new levels of christification.<sup>100</sup> The other alternative, and perhaps Teilhard would be rather loath to accept this, is a form of universal consubstantiation, or the presence of Christ in, with and under the matter of the world. However, here we would still be confronted with a process (in the form of human evolution) which is capable of bringing about the divine presence in the Incarnation, and can now increase it through Christification. None of these three possible interpretations protects the createdness of evolution.

<sup>99</sup> FM, 56, quoted from Farrow, *Ascension and Ecclesia*, 213, n215

<sup>100</sup> Because this would also imply that the multiple would only be redeemed through its annihilation, this is unlikely to be Teilhard's intention, as unification involves the preservation of the multiple within new degrees of unity.

(iii) Teilhard's concept of a juridical model of redemption and the God-world relationship is disavowed by himself and by Gunton. For both authors, the Incarnation is redemptive but also occurs as part of the perfection of the created order. However, as commentators on Teilhard have pointed out, he does not hold both aspects of the purpose of Incarnation together. On his understanding, redemption is not in any sense reparation for sin, but is rather a remedy for a malady that is inherent in matter from the very beginning, and so the Incarnation is effectively reduced to its evolutionary significance. The Incarnation and redemption are ongoing, as both are reliant upon the progress and fulfilment of evolution. God is incarnate for the sake of Omega, and is incarnate through evolution not through choice but because God cannot create wholes. Because Omega requires the Incarnation, Omega requires evolution.

Teilhard is quite right to point out the potential for Deism if Christ is not seen in a Scotist framework, or if at least the preincarnate divine immanence is ignored. Nonetheless, as he defines the Incarnation simply as evolutionary intensification of this immanence, and as he perceives this intensification to be *a natural product* of evolution, then he is veering towards a Pantheism brought about by the natural order itself. We see this in Teilhard's affirmation of the Universal Christ as the mediator between God and the world. Instead of seeing this mediator as the Risen and Ascended Christ who is also in some mysterious sense the Pauline Cosmic Christ, Teilhard views the mediator as the one who is a divine Person rendered through a creaturely process. As such, it is insufficient to point out that Teilhard is insistent on the 'origins' of his vision of the ongoing Christ in the person of Jesus of Nazareth. Such particularity as Teilhard's understanding of the Incarnation can muster is quite simply lost in the Total Christ.

(iv) Christification is occurring in and through current human evolution. The locus for the most intensive evolutionary advance is the Church, which is the true axis of evolution as it is 'closest' to the Christic element, and has the clearest idea of the goal of evolution at Omega. Teilhard's vision of the Church as the locus of the

greatest evolutionary progress and Christification is very reminiscent of Gunton's position on the Church as the eschatological community. For Gunton, the very existence of the Church and her worshipping and serving actions represent a prolepsis of the future condition of the natural order in the present. The difference of course lies in how Teilhard and Gunton view the divine contribution to this human community and action. For Teilhard, divine action as it is understood here is of a much more attenuated nature than the concept of the Super Christ would at first suggest. Teilhard's discussion of the nature of religion, in conjunction with the necessity of the irreversibility of evolution which Omega provides, suggests that the Universal Christ has rather more of an inspirational than an active role. Essentially, the Universal Christ, perceived to be the proleptic or incompletely evolved presence of Omega within evolution, seems to function in no other way than by evoking human responses of increased radial energy as love. Here, human awareness of Omega, coupled with the example of the presence of the unity of Christ within evolution, is sufficient to support our drive for further collectivisation. The central triune core at the heart of the evolutionary cone is passive and activity resides in the christic-ecclesial cone and to a lesser extent in the outer humano-cosmic cone.

Why is it that the active 'aspect' of the Total Christ, the Super Christ, seems to have so little influence within evolution? The answer seems to be that the Super Christ is active only redemptively, and we have seen that this requires active language only in light of Teilhard's description of the nature of the multiple. In other words, the divine christic immanence is active only if by its very nature it is a struggle against an active multiple. The second reason as to why human evolution is described in such active terms is the mirror image of this first reason; the language of agency, of the ascent towards Omega, must be transferred to the creature, if it is not applicable to the Creator. Hence, it is (primarily redeemed) human collectivisation that contributes to the formation of the mystical body of Christ. It should be noted that the transference of language is quite specific – the created order and especially the Church takes on pneumatological functions and language. It is the inspiration of Christ-Omega, and not the Spirit that unites and enables the Church, and it is primarily ecclesial human collectivisation and not the Spirit that contributes to the

evolutionary perfection of the cosmos. There is also something of this in Teilhard's identification of christogenesis and cosmogenesis. It should be recalled that although Teilhard in fact identifies cosmogenesis and christogenesis, neither of these refers to the whole of the cosmos. Only those elements within the cosmos that can undergo ultra-evolution are contributing. Therefore only these are contributing to an increase in reality and value in the cosmos. This sounds very reminiscent of Gunton's concept of election, as a pneumatological enabling of individuals for a given task as this contributes to the divine perfecting of the created order. In this instance, those who are sufficiently complex carry out the perfecting, and evolution and not the Spirit has selected them. In summary, the created process of evolution has taken on both redemptive and perfective functions, as christological action is attenuated, and pneumatological action is absent entirely.

(v) Both Gunton and Teilhard are concerned to emphasise the retrospective presence of Christ in the world, in order to emphasise the naturalness of the Incarnation. However, in Teilhard's thought this naturalness is overemphasised to the extent that there is a complete identification of cosmogenesis and christogenesis. We see this in his troubling view of evolution as holy. If Teilhard's point were simply that evolution is that process which renders the world as the body of Christ, and which brings about the final subjection of all things under Christ, then this would be rather attenuated divine action, but that would be the sum of the problem. However, Teilhard goes further; evolution not only increases the *influence* and *unity* of Christ within the world, but also increases his *presence*. Evolution is a divinisation of the world, and a nourishing of Christ, and as such can only be distinguished with difficulty from the destruction of the world as a relatively autonomous creature.

What is being formed through current evolution? The answer seems to be the third, cosmic, nature of Christ. The function of this motif then becomes clear in that both the divine and human natures of Christ would lose their identities if either were to be perceived to undergo evolution. Therefore there must be another, evolvable, aspect to the being and person of Jesus Christ. Apart from the lack of scriptural or theological



warrant for this proposal, there is the further problem of identifying what this cosmic nature actually is. The difficulty with this proposal is that even if this third nature is not something divine, then it is not precisely biological either. It is inimical to the createdness of evolution to argue that it can produce a divine result solely by its native energies. Teilhard seems to be aware of this and so both overplays the naturalness of christogenesis and attacks a juridical model of the Incarnation in order to maintain the implicit createdness of evolution. But in what way is the mystical body of Christ to be understood to be a genuine product of evolution? It is certainly not an organism. Is it perhaps the result of cultural evolution? This is feasible, especially as we have argued that it is the inspiration of Omega that draws human evolution onwards. But this does not explain how something is actually formed within this cultural process. Cultural evolution is to be understood in terms of cultural artefacts and perhaps memes. Neither of these is applicable to what Teilhard envisages to be the product of current human evolution, insofar as this would appear to be a living reality.

(vi) The evolutionary perfection of the natural order ends of course at Omega Point. The final act of the Cosmic Christ is the attainment of the Pleroma, or the fullness of evolution and the cosmos through an organic complex with God. There are some very helpful aspects to this theology, and we should take some time to point these out. The first of these is that the notion of Omega at the very least emphasises the perfectibility *of the natural order*. As Gunton points out, the gradual perfection of the created order must be the affirmation of its innate identity and not its annihilation. A second important feature of Teilhard's theology at this point is the strong disavowal of Pantheism that we find throughout his description of current evolution and especially at Omega. The notion of an organic unity between God and the perfected cosmos sounds rather alarming, but it is clear that as the mediation of Christ is maintained even at this point, then Pantheism (if not Gnosticism) is again far from Teilhard's intention. Third, Teilhard seems keen to emphasise an asymmetrical

eschatological vision.<sup>101</sup> Overall, Teilhard's scheme here has resources for safeguarding the reality of the natural order as purposive in that it possesses a destiny, and in maintaining its identity once it has reached the Eschaton.

However, there are elements of Teilhard's thought that do militate against the potentially favourable impression he gives here. First, the Parousia is dependent, or contingent upon, a *humanly derived* evolutionary threshold, rather than on explicit divine will. This is only reinforced by the purely lure-like action of Omega.<sup>102</sup> Second, because God seems to gain from Omega, either the divine self-sufficiency or the createdness of the natural order is at stake. If God gains from the end-state of the cosmos, then this is necessary to the divine perfection and not contingent. Moreover, in conjunction with the previous point we are again confronted by a competitive God-world relationship in which divine self-sufficiency and creaturely identity cannot be simultaneously maintained. Finally, there is something rather jarring about Teilhard's vision of Omega as a final escape of mind from matter. Apart from a devaluing of non-conscious or non-human matter, it contradicts Teilhard's emphasis on the created order *per se*, as only the human or conscious portion can be preserved. It is not too difficult to trace where the impulse towards this idea might stem from. We have already seen that the multiple is sometimes regarded as intrinsically and morally evil in Teilhard's thought.<sup>103</sup> Teilhard again seems to be suggesting that it is the unified and not the unifiable which is valuable, and that evolution is orthogenesis because it refers only to the successes of unification. This is failing to respect the contingency of the evolutionary process, insofar as the nature of evolution is being determined *a priori*. Teilhard must argue for unity and convergence within evolution because this is in fact all there is, or at least all that is worth mentioning, within the process.

---

<sup>101</sup> Although it is not difficult to see why Teilhard's difficulties with creation *ex nihilo*, might lead to the suggestion that his eschatology is symmetrical, and represents an emanation of the multiple from God and its ultimate return to God in completed form. (Robert North, 'Teilhard and the Problem of Creation', *Theological Studies*, 24 (1963), 577-601, (citation, 598))

<sup>102</sup> Colin Sykes, 'Teilhard de Chardin and the Cosmic Christ', *Theology*, 78 (1975), 467-474, (citation, 471)

<sup>103</sup> Gray argues that the multiple is good and valuable because it is the matrix for Spirit. In other words, it is not good in and of itself! (Gray, *The One and the Many*, 37). Bruno de Solages makes a similar point by noting that for Teilhard spiritualisation and materialisation are *opposite tendencies*, not least because the multiple can resist the rise of Spirit. (de Solages, *Teilhard de Chardin*, 285-287)

*Conclusion*

In this chapter we have addressed what is perhaps the most complex and difficult aspect of Teilhard's thought – the current state of organic and christic evolution until the Parousia. The strongest aspect of Teilhard's thought with regard to createdness is his understanding of the Parousia, because here he has the most safeguards for the integrity and identity of the natural order and also christological particularity. Here Christ is clearly the mediator between God and the world, and represents the asymmetrical goal of evolution and eschatology. However, here and elsewhere in Teilhard's theology in this chapter, there are difficulties for createdness. Whilst we do not wish to oversimplify the matter, these are traceable to three factors. First, Teilhard's tendency towards reflexive Pantheism – i.e. the natural order and natural entities take on divine functions and attributes because they are not explicitly attributed to the triune God. Second, Teilhard's theology lacks a discussion of the Ascension and there is a consequent reduction in the particularity of the Incarnation. Third, Teilhard has no developed (if extant at all) Pneumatology. These latter two points are of course largely responsible for the first point, but not entirely so. After all, it is conceivable that one could affirm the intricacies of Teilhard's Total Christ and simultaneously affirm the reality and sovereignty of christological action. However, this would be difficult without also affirming pneumatological action. Overall, the consequences of these difficulties are the collapse of world process into divine process, a loss of creaturely integrity and divine self-sufficiency. Reflexive Pantheism threatens at the heart of Teilhard's eschatological thinking, just as it has in his metaphysics of creation and his understanding of the Incarnation and evolution. In our third section we must apply our grammar and the lessons we have learned here from Teilhard's thought to the contemporary treatment of evolution at the interface with science. Having done so, we can discuss evolution from the perspective of createdness.

**Summary: The Createdness of Evolution in the Thought of Teilhard de Chardin**

(i) In the last three chapters we have provided an all too brief exposition and critique of the theology and hyperphysics of Pierre Teilhard de Chardin. His thought is remarkably fecund, and it has been difficult to present such exhilarating ideas in such a short space. However, despite their attraction, Teilhard's ideas face severe difficulties from the perspective of our grammar of createdness. The basis of these difficulties must be attributed to his underdevelopment of his doctrine of God, certainly in comparison to the richness and complexity of his Christology. First, although his metaphysics of creation makes mention of Trinitization, otherwise his conception of God is effectively unitary or binitarian. Moreover, his scheme self-evidently cannot support a doctrine of the Immanent Trinity, and so cannot support the motif of the prevenience of God and so the divine capacity for willing and initiative. Without a doctrine of the Trinity and without safeguards for the divine prevenience, then Teilhard's understanding of the God-world relationship suffers, and presents problems for the concept of its mediation and the 'space' for the integrity of the natural order as a created entity.

(ii) The blurring of the Creator-creature distinction that is signalled by Teilhard's problematic doctrine of God threatens to turn into full-blown Pantheism in his doctrine of creation. Here God cannot create the multiple – it arises in opposition to, rather than from the divine being, but it is nonetheless not the product of the divine will and action-in-relation. The loss of the explicit createdness of the natural order plays havoc throughout Teilhard's theology. First and foremost, we have a glaring example of a contrastive/competitive God-world relationship, because now Teilhard cannot prevent various divine attributes and powers, which should be aspects of his doctrine of God, from reappearing in the constitution and capacities of the natural order. Hence the multiple/disunited can consciously or unconsciously resist the attenuated divine will. Moreover, this ability to resist signals its morally evil

character and so Teilhard completes his conflation of creation and Fall that attributes physical evil to the multiple/disunited. For Gunton, following Irenaeus, the world is intrinsically good *as God's creation*, as that which enjoys its own boundaries and limitations. For Teilhard this is not the case.

(iii) Teilhard's Christology also suffers because of the loss of the createdness of the natural order. The figure of Christ gains much but loses much more in Teilhard's scheme. The most serious loss is that of particularity, because the Incarnation is no longer a specific outcome of the work of the two hands of God, but is instead a generalised capacity of matter and evolution once their moral ambiguity is overcome. Moreover, Teilhard seems incapable of preventing the presence of Christ from becoming a generic christic immanence, such that the Incarnation is a temporary condensation of immanence. We do not deny that Teilhard tries to shore up the specificity of the Incarnation by basing immanence upon the divine transcendence and by basing the Cosmic Christ upon the person of Jesus of Nazareth. However, neither of these is really followed through. The divine transcendence is not conceptually secured in God's triune freedom, and Teilhard belies his own concern for Jesus of Nazareth by losing such particularity as there is by ignoring the Ascension and depersonalising this Christic presence as a number of anonymous christological roles.

(iv) In terms of Soteriology, redemption no longer involves Atonement. Redemption is the purely functional task of securing evolutionary progress through a degree of unification but primarily by providing an exemplar of the worth of continuing our human evolutionary progress. Note also that because the multiple is evil, then redemption is the ongoing process of further unification. The incompleteness of redemption is also due to the attenuated nature of divine action. It cannot be a once-for-all divine endeavour and so must be an ongoing human one. The fulfilment of redemption through our amplified, godlike, powers is in effect salvation by works. Two things are required here – a substitutionary doctrine of the Atonement and a

doctrine of Pneumatology. Together these make it clear that redemption is brought about by the two hands of God, and distinguishes (rather than divorces) it from the perfective eschatology that is again brought about by the Son and Spirit of God.

Teilhard's lack of a rigorous Pneumatology also has profound effects on his wider theology. Let us compare Gunton's discussion with that of Teilhard. For Gunton, the Spirit perfects the innertrinitarian love through the particularisation of the relationships of the divine Persons and by focusing the divine love outwards. Teilhard does not even seem capable of securing the *ad extra* nature of divine action. The Spirit also perfects and particularises the God-world relationship, by delineating the limits of the created order. On such an understanding, there can be no opposite 'pole' to the divine being from which the multiple emerges on the blurred boundaries between God and the creation. The Spirit is also responsible for the particularity that Gunton insists is essential for Christology. The conception of Christ is a divine, pneumatological, initiative and not a human or creaturely one. The divine and human natures in Christ are maintained in their particularity (their ontological dualism) and unity by the power of the Spirit. The Word of God is active in the Incarnation, in reliance on the power of the Spirit, for instance in the temptations. The redemption wrought by Christ is an achievement brought about by a specific action or set of actions by a particular person, Jesus of Nazareth. By comparison, Teilhard's scheme is christomonist if not unitarian. Thereby it is lacking in particularity, as the Incarnation is essentially something that happens to God, and because the Cosmic Christ must be warped into a figure with those christological and pneumatological functions which have not already been abrogated to evolution itself.

(v) The endangered createdness of the natural order is also apparent in its evolutionary eschatology. For Gunton, the destiny of the world is not to be confused with any created eschatology, be it cosmological or evolutionary, whereas in Teilhard's scheme eschatology is naturalised or 'demythologised'. It is the burden and eventual achievement of evolution itself. Divine action is reduced to the inspirational presence of the Cosmic Christ as a spur for further evolution. Not only



does this threaten the created identity of the world by reinforcing the reflexive Pantheism we already find in Teilhard's work, but it also places a large question mark over the nature of what is being formed through this evolutionary eschatology. Evolution has brought about the Incarnation, it is bringing about Christification (a cosmic transubstantiation) and it will bring about the final God-creation complex, Omega. The created can *bring forth* the divine and is perhaps transforming itself *into* the divine. This does not bode well for the intrinsic value of the natural order. Coupled with Teilhard's argument that Omega will preserve only conscious elements, we find here another reflection on his negative judgement on matter. What matters in the long-term is Spirit, not Spirit-matter, and even here only as it sublimates itself in the formation of a new and higher degree of unity with God.

(vi) So far in this summary we have pointed out the importance of the concept of createdness for theology, but we must not forget that it is also important for science. Teilhard's difficulties with createdness have negative consequences for science in three ways. First, if our grammar of createdness is correct, then the concept of the Within reflects the reflexive Pantheism that we have seen in Teilhard's theology. This non-scientific concept is the result of divinising the natural order. This of course results in the moral and physical evil that Teilhard attributes to the multiple. In turn, this again has a negative effect on the rational contingency of evolution because Teilhard *redefines* evolution as that which escapes from this dangerous multiplicity. Evolution is defined *a priori* as orthogenesis, with contradictory moments of contingency. In other words when created elements (accidentally or deliberately) respond to the divine lure, then we have evolution proper. When they resist (again accidentally or deliberately) we have groping, extinctions and stagnation.<sup>1</sup> As the metaphysics of *unire* makes clear, to evolve is to increase in reality. Third and finally, the concept of Omega itself demonstrates the lack of both rational contingency and createdness in Teilhard's scheme. Omega is divine and so is something beyond the purview of the natural sciences. Indeed, Omega cannot be identified through the natural sciences unless it is a naturalistic outcome. Teilhard

---

<sup>1</sup> Hence Teilhard can safely ignore insects and plants because they are not undergoing unification and so are not strictly speaking evolving.

cannot consistently argue that Omega is both scientific and transcendent.<sup>2</sup> To argue that Omega is divine and also a naturalistic outcome of the evolutionary process involves non-scientific deduction (an ignoring of the rational contingency of the natural order) and a divinised evolution (which is no longer created). Therefore, in the theology and hyperphysics of Teilhard de Chardin we find a confluence of a loss or disregard of rational contingency and createdness.

---

<sup>2</sup> Jones, *Teilhard de Chardin*, 52-53

## **Section 3: Applying the Grammar of Createdness: Evolution and the Science-Theology Interface**

### **Introduction: The Boundaries of our Study**

(i) Having used the evolutionary thought of Teilhard de Chardin as a test case for the theological significance of createdness, we can now move on to examine some contemporary discussion of evolution at the science-theology interface. Although we shall be closely following Gunton's understanding of the doctrine of Providence and the God-world relationship, we shall have to forge our own path with respect to evolution. Gunton's own discussion of this subject is very brief, and centres on a disavowal of evolutionary Christology and in effect a disavowal of any theological significance for evolution at all. Although this is essentially the position we shall take in this section, we must have a more rounded approach if we are to be able to justify such a conclusion. In short we must discuss the createdness of evolution. But how can we achieve this?

(ii) If we are to make a contemporary contribution to the subject of evolution from the perspective of its created status, then we must obviously first consider other contemporary treatments at the science-theology interface. However, this subject is vast, ranging from discussions of evolutionary ethics to evolutionary psychology and human uniqueness, and so we must narrow our focus. To do this we can make a distinction that is central to our grammar, and which has been verified in Teilhard's theology – evolution is not to be conflated with Christology or with a perfecting eschatology. To do either is to conflate science and theology, confer divine attributes on the process of evolution, and denigrate its createdness. We can therefore ignore this aspect of contemporary discussion and focus instead on the treatment of motifs which are central to our grammar. We wish to ask and answer the following question, how do contemporary treatments of the doctrine of God, the God-world relationship, the doctrine of creation and divine action affect the createdness of evolution within these accounts?

(iii) As we shall see in the next chapter, the issue of evolution has proved to be a great stimulus for creative work at the interface with science. However, it is fair to say that evolution is a stimulating concept because in many respects it is considered a theological problem. To be more specific, at the interface evolution raises issues about the necessity and desirability of divine action. This latter point is quite fundamental, because this claim that divine sovereignty over evolution leads to an unworthy conception of God, often leads to a reworking of the overall concept of divine sovereignty, divine action and the relationship of God and the world. The conclusion of such re-workings is the assumption that we do not need to conceive of God as sovereign over evolution (and it has to be said God is often conceived of as unable to be sovereign over evolution.) These reworked concepts and their effects on the createdness of evolution are our particular concern here and we will discuss them in the light of our grammar and the lessons we have learned from Teilhard's theology, both positive and negative. Once we have deliberated over the contemporary state of play with regard to evolution, we can move on to make our own contribution, again with an eye to our grammar as well as Teilhard's theology. We might anticipate our later discussion here and make the point that evolution does not require a specific theological discussion, and indeed the assumption that it does is greatly responsible for some of the difficulties we will find in the contemporary discussion. Nonetheless, if we can discuss evolution from the perspective of its createdness, as a created entity, - *as a creature* we might say – then we have gone some way towards demonstrating the importance of createdness as an underlying motif for a theology in dialogue with science.

## Chapter 8: Contemporary Perspectives on Evolution

### *Introduction*

The overall aim of this thesis is to demonstrate the importance of createdness for theology, and in particular for a theology in interaction with the natural sciences. Ultimately we have to state our case by providing a very basic outline for a theological treatment of evolution from the perspective of its createdness. To this end, we need to learn from Gunton and from Teilhard, because even though the latter's work contains much that is problematic for the concept of createdness, his concern for the innate structures of the natural order is an important lesson. However, before we can make our own contemporary case, we must turn our attention to the treatment of evolution at the science-theology interface. The reason for doing so is identical to that for our continuing attention on Gunton and Teilhard – the lessons we can learn. To be more precise, because we self-evidently cannot survey all treatments of evolution at the interface, we have focussed on authors or schools of thought for whom evolution is theologically significant. We will therefore discuss the theology of several representatives from both the Functional Integrity (FI) and Process thought schools, as well as that of the noted scientist-theologian Arthur R. Peacocke.

In the introduction to this section we indicated that we were also being selective with regard to issues of evolutionary Christology/eschatology. As such, we are not providing exhaustive treatments of our three contemporary specimens (indeed, it would be impossible to do justice to the complexity and variety of Process thought). It should be noted then that Peacocke does have an evolutionary Christology, as do some of the representatives of Process thought whom we shall be investigating. These concepts are no doubt theologically significant, but we have already discounted them as hazardous to the createdness of evolution. We have also dismissed these motifs from our discussion because this chapter is not intended to be a full-blown contemporary critique of evolution at the interface. To be sure, we will note any other such hazardous motifs as we proceed, but we are more interested in

constructive criticism. What lessons, both positive *and* negative, can we learn at the interface for our own theological contribution?

**(A) *Functional Integrity (FI)***

Our first port of call is the relatively recent theological phenomenon of FI. This is becoming an increasingly popular position amongst scientifically articulate evangelicals as an alternative to both theistic evolution (i.e. providentially guided evolution) and special creationism. This is particularly so for one of its most prominent advocates, Howard J. Van Till, but it is also popular amongst other authors who may or may not be evangelicals, but who wish to explore the theological ramifications of evolution through FI. This latter category includes George L. Murphy, William R. Stoeger and Rudolf B. Brun. What makes FI interesting and important is that there is a concerted focus on the created integrity - the *functional integrity* (FI) - of the natural order, which these authors consider to be threatened by the interventionist accounts of divine action in evolution found in special creationism and Intelligent Design (ID) theory. This is essentially as far as Van Till takes the argument, and it is the other authors who expand on the wider theological significance of this created integrity. Although this position is somewhat of a newcomer, in many respects it is representative of other theological positions at the interface, and so we will deal with it in relative detail. We will treat the other two examples from the interface in more detail only as they differ from this position.

(i) The basic premise of special creationism and ID is that certain features of the created order (mind, life, humanity, etc.) could not have evolved through natural processes. Van Till's response is to regard this as almost a slur on the natural order and its Creator, in that it must be assumed that "by God's choice to withhold certain form-producing capacities, *the economy of this created world must be*



*developmentally incomplete.*"<sup>1</sup> Special creationism then is in the unfortunate position of celebrating the incapacities, rather than the capacities of the natural order.<sup>2</sup> Van Till rightly notes that this form of theology is closely linked to a particular understanding of divine action, that of the God-of-the-Gaps.<sup>3</sup> However, the natural sciences, working on *the robust formational economy principle*, assume that there are no gaps.<sup>4</sup> Special creationism and ID often equate this with a deistic proscription of "temporal divine action of any sort in this world."<sup>5</sup> However, Van Till rightly argues that Christians should in fact *expect* the world to have a created integrity and a high FI, because the world's properties are "to be seen as a manifestation of the creativity and the generosity of the Creator".<sup>6</sup> The irony then is that special creationism has a lower estimate of divine creativity because "it makes God a specialist who simply can do a few things that no one else can do, instead of God Almighty who actually does everything that happens in the world, but in a hidden way through concurrence with natural processes."<sup>7</sup>

(ii) Van Till's argument is significant because it is based on one of the principles of the doctrine of creation - the 'relative autonomy' of the created order, wherein "we mean the self-sufficiency nature possesses by virtue of the fact that God has granted

---

<sup>1</sup> Howard J. Van Till, 'Basil, Augustine, and the Doctrine of Creation's Functional Integrity', *S&CB*, 8:1 (1996), 21-38, (citation, 25)

<sup>2</sup> Ibid. 34

<sup>3</sup> Ibid. 25 and Howard J. Van Till, 'Is Special Creationism a Heresy?', *Christian Scholar's Review*, 22:4 (1993), 380-395, (citation, 384)

<sup>4</sup> Howard J. Van Till, 'The Creation: Intelligently Designed or Optimally Equipped', *Theology Today*, 55:3 (1998), 344-364, (citation, 351)

<sup>5</sup> Van Till, 'Basil, Augustine, and the Doctrine of Creation's Functional Integrity', 26

<sup>6</sup> Van Till, 'The Creation', 361. Therefore, "each capability that contributes to the Creation's *formational economy* is a gift of being that we may celebrate as a manifestation of the Creator's creativity and generosity." (Howard J. Van Till, 'Is the Universe Capable of Evolving?', in Keith B. Miller (ed.) *Perspectives on an Evolving Creation* (Grand Rapids, MI/Cambridge: Eerdmans, 2003), 313-334, (citation, 331)

<sup>7</sup> George L. Murphy, 'The Third Article in the Science-Theology Dialogue', *PSCF*, 45:3 (1993), 162-168 [Online document] <http://www.asa3.org/ASA/PSCF/1993/PSCF9-93Murphy.html>. "Those who yield to the temptation to reserve a point here and there for special divine interposition are apt to forget that this virtually excludes God from the rest of the process. If God appears periodically, He disappears periodically." (Drummond, *The Ascent of Man*, 427). "Intermittency of operation is no proof of specially Divine power." (Vernon F. Storr, *Development and Divine Purpose* (London: Methuen, 1906), 122)

it laws of operation".<sup>8</sup> This autonomy is 'relative' because the creaturely capacities still require the God-world relationship, and because they are contingent. They are God-given, "and prepared by God to perform the tasks for which they were called into being."<sup>9</sup> The regular and law like behaviour of the natural order does not then lead us to a deist position; indeed, it is a sign of the divine faithfulness in sustaining this creaturely dynamism. For Van Till, 'relative autonomy' is 'functional integrity'. The world has been gifted with the capacities for evolutionary and cosmological development without divine intervention.<sup>10</sup>

Van Till argues further that this confidence in the FI/relative autonomy of the created order is missing in special creationism. The difficulty lies in understanding the meaning of 'relative'. If the natural order and its inherent regularities have only a 'relative', albeit genuine, autonomy, then we must think of them as limited. This of course entails the necessity of the continuing divine sustaining, but this also entails the fact that they only have genuine activity "within the limits established by the Creator at the beginning."<sup>11</sup> In other words, Van Till is rightly pointing out that the laws of nature are contingent in both their existence and their parameters. His point, however, is that for him the Christian tradition (and here he is thinking of the contemporary creationist tradition in particular) tends to view these limits not as aspects of contingency, but as *upper limits* – i.e. limits on what the natural order and its law like behaviour can achieve.

(iii) FI does not represent a deist position, and neither does it represent an *opposition* to or *diminishing* of divine action. There is no question that God cannot intervene, for instance to bring about miracles, but the question must always be whether this is

---

<sup>8</sup> Howard J. Van Till, 'Can The Creationist Tradition Be Recovered? Reflections on 'Creation & the History of Science' [C. Kaiser]', review of Christopher B. Kaiser, *Creation and the History of Science*, in *PSCF*, 44:3 (1992), 178-185 [Online document] <http://www.asa3.org/ASA/PSCF/1992/PSCF9-92VanTill.html>, quoting from p15 of Kaiser's book.

<sup>9</sup> Ibid.

<sup>10</sup> Van Till, 'Basil, Augustine, and the Doctrine of Creation's Functional Integrity', 29

<sup>11</sup> Van Till, 'Can The Creationist Tradition Be Recovered?'

a world in which God needs to act in this way.<sup>12</sup> Indeed, because miracles are not necessary for specific evolutionary and cosmological developments, their significance can be rediscovered, as they are regarded solely as “voluntary acts of God freely performed for their special revelatory or redemptive value.”<sup>13</sup> Van Till shows that he is sensitive to the potential interpretation of his work in terms of what Gunton calls reflexive Pantheism. He asks whether FI implies that evolution is itself *imbued with all creativity*. The answer is no, because no creature can create as such.<sup>14</sup> Instead, in a manner that is quite common at the interface, he prefers to talk of an evolutionary *exploration* of the ‘possibility space’ of arrangements of DNA and so the *discovery* of “novel forms that are variable in the environment at hand.”<sup>15</sup> This exploration arises by chance, implying that chance is part of the design of the universe and is used by God for “the achievement of his purposes for the formative history of the created world.”<sup>16</sup> This is part of the concept of FI, which also argues that if evolutionary development can occur through explorations of ‘possibility space’, then God must have richly provisioned this space with viable structures and connections between genomes.<sup>17</sup> Such viable structures and connections are species, genera, etc. which represent areas of evolutionary stability within ‘possibility space’. Van Till likens these to the ‘strange attractors’ of Chaos theory and argues that “the whole array of genomic attractors could be seen as biological potentialities given to the Creation by the Creator, and random genetic variability as the capacity given to DNA to explore that genomic space so that some of those potentialities might be discovered in the course of Creation’s formative history.”<sup>18</sup>

(iv) So how can divine creative action be distinguished or discerned? Van Till uses a royal metaphor.<sup>19</sup> God acts by “calling upon the creation to employ its creaturely capabilities to bring about a fruitful outcome”, and “*the fruitful character of*

<sup>12</sup> Van Till, ‘Basil, Augustine, and the Doctrine of Creation’s Functional Integrity’, 36-37. C.f. Van Till, ‘The Creation’, 362

<sup>13</sup> Van Till, ‘Is Special Creationism a Heresy?’, 393

<sup>14</sup> Van Till, ‘Basil, Augustine, and the Doctrine of Creation’s Functional Integrity’, 37

<sup>15</sup> Ibid. 37

<sup>16</sup> Ibid. 37

<sup>17</sup> For more on this see Van Till, ‘The Creation’, 362

<sup>18</sup> ‘Basil, Augustine, and the Doctrine of Creation’s Functional Integrity’, 37, n22

<sup>19</sup> Van Till, ‘Is Special Creationism a Heresy?’, 385

*creation's formational history is the manifestation of that divine calling.*"<sup>20</sup> This is what we read of in the Genesis account. Here we find 'ministerial creation', wherein "the Creator calls upon earthly material to do something."<sup>21</sup> The Sovereign Creator speaks and creation responds. Because the world makes an intrinsically real response to the divine calling, then we must not conceive of this calling as 'magic' and coercive words. Instead they are "words of royal edict that call upon the earth and water to use their resident capacities-the gifts of active being already given to them by the Creator-to produce the plants and animals that the Creator had in mind."<sup>22</sup> This is the illustration of a world endowed with functional integrity, wherein there are no gaps that require divine intervention.<sup>23</sup>

(v) The other explicit or implicit FI advocates we wish to discuss represent a development of the basic motifs in Van Till's work. Therefore, in the work of George L. Murphy, we initially find the same presuppositions. For him, FI means "God has created a universe which depends continually upon God, but which has been endowed with the ability to accomplish what God wants it to accomplish without any "corrections" or "interventions.""<sup>24</sup> He rightly connects FI, which after all reflects the createdness of the natural order, with 'methodological naturalism' - the fact that the processes of the natural order can be the result of scientific enquiry "*without reference to God.*"<sup>25</sup> The essential difference between Van Till and Murphy is that whereas the former talks of creation and divine action as a *royal edict*, the latter talks of a divine *kenosis* or *self-limitation* in creation based on the kenosis of the Incarnation. Murphy urges that we realise that if "the exalted crucified one is identified with God", then the self-emptying shown most fully in the cross "gives us a profound insight into the *kind* of deity God is."<sup>26</sup> More specifically, because the

<sup>20</sup> Van Till, 'The Creation', 362. Although Van Till focuses on the divine calling in the origin of the created order, he does seem to suggest that this divine calling also has a present tense, for example in response to prayer. (Ibid. 362)

<sup>21</sup> Van Till, 'Is Special Creationism a Heresy?', 385

<sup>22</sup> Ibid. 385

<sup>23</sup> Ibid. 385

<sup>24</sup> 'George L. Murphy, 'Chiasmic Cosmology and Creation's Functional Integrity', *PSCF* 53:1 (2001), 7-13 [Online Document] <http://www.asa3.org/ASA/PSCF/2001/PSCF3-01Murphy.html>

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

God revealed in Christ is Creator, then we must expect a similar self-emptying of God in the divine creative and preserving activity. This leads to what Murphy refers to as 'chiasmic cosmology'.<sup>27</sup> This 'chiasmic' model allows Murphy to distinguish between different models of divine action. He can confidently reject the 'Classical (Ruler-Kingdom)' model, not because of inherent difficulties with affirming the sovereignty of God and divine action, but rather because "the God revealed in Christ does not act as the absolute and arbitrary dictator of the world, which is what the Classical view often amounts to."<sup>28</sup> The alternative is not Deism, but the 'Neo-Thomist' model, in which God as the first cause acts through secondary causes. Here, the divine *concursus* is affirmed "so that what happens in the world is done by God (thus the distinction from Deism is clear) and is done also by natural processes."<sup>29</sup> This is a self-limitation of divine power so as to accord with the created regularities of the natural order, and so "God foregoes the power to act arbitrarily in the world."<sup>30</sup>

(vi) A kenotic or chiasmic view of creation and divine action means that the functional integrity of the natural order represents a hiding or hiddenness of God, which in turn provides the possibility of 'methodological naturalism'. God is not a causal complement to the FI of the created order.<sup>31</sup> Therefore, in terms of evolution, God does not guide the process through the imposition of his will, but rather evolution fulfils the divine plan *in that* it creates itself freely.<sup>32</sup> William R. Stoeger,

<sup>27</sup> Based on Justin Martyr's reference to Christ as the one "placed crosswise (*echiasen*) in the universe."

<sup>28</sup> 'Chiasmic Cosmology and Creation's Functional Integrity'

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> Brun, 'Integrating Evolution', 288. C.f. idem. 'Cosmology, Cosmic Evolution, and Sacramental Reality: A Christian Contribution', *Zygon*, 37:1 (2002), 175-192, (citation, 186-187). It is interesting to note that Brun's position leads him to understand the Incarnation as an intervention into history and the natural order. (idem. 'Does God Play Dice? A Response to Niels H. Gregersen "The Idea of Creation and the Theory of Autopoietic Processes"', *Zygon*, 34:1 (1999), 93-100, (citation, 99). A similar argument is made by Holmes Rolston III. He argues for a 'cruciform' creation (i.e. one marked by suffering) and because of the identification of God with this suffering, creation or nature is "deiform, godly, just because of this element of struggle, not in spite of it." (Holmes Rolston III, *Science and Religion: A Critical Survey* (Fort Worth, FL: Harcourt Brace, 1997), 144-145)



similarly, argues that “[c]reation *as such* is God’s expression of God’s self.”<sup>33</sup> This is an important point, because Stoeger rightly wishes to affirm that this hiddenness of God is not to be equated with the absence of God, and is instead consonant with a strong motif of immanence. There is no need for ‘gaps’ in the natural order to “make room” for God, because he is already and always profoundly present and active throughout it. The (relative) autonomy and FI of the natural order “do not marginalize God, but rather express God’s active presence and God’s respect for creation in the fullest way. Nor do they indicate God’s absence or abandonment of creation, but rather God’s full and abiding presence within it, though *not in a determinate way*.”<sup>34</sup>

(vii) Murphy also expands on the concept of FI, by making a connection between evolution and theodicy. For him, traditional apologetics are inadequate because they do not adequately emphasise the loss and suffering through evolution of which this beauty is the result.<sup>35</sup> Instead, this is compatible only with a theology of the Cross, in which the God of glory has become hidden in the humiliation of the cross. Indeed, in Christ, “God has become a participant in the evolutionary process, and has suffered and died in solidarity with the losers in that process.”<sup>36</sup> This is why Neo-Darwinism, which perceives no teleology in evolution is more consonant with a chiasmic cosmology than Lamarkianism, which favours orthogenesis. Again this is not to say that God does not act, but rather to argue that God alone is the one who can bring good out of such disorder and evil.<sup>37</sup> God can bring about the desired good “in spite of - in defiance of - the lack of any human, any creaturely, possibility.”<sup>38</sup>

<sup>33</sup> William R. Stoeger, ‘Faith Reflects on The Evolving Universe’, in Michael J. Himes and Stephen J. Pope (eds.) *Finding God in All Things* (New York: Crossroads Publishing, 1996), 162-182, (citation, 176)

<sup>34</sup> Ibid. 176. “If God watches the sparrow fall, God must do so from a distance.” (Rolston, *Science and Religion*, 140)

<sup>35</sup> George L. Murphy, ‘Cross-Based Apologetics for a Scientific Millennium’, *PSCF*, 52:3 (2000), 190-193 [Online document] <http://www.asa3.org/ASA/PSCF/2000/PSCF9-00Murphy.html>

<sup>36</sup> Murphy, ‘Chiasmic Cosmology and Creation’s Functional Integrity’

<sup>37</sup> George L. Murphy, ‘A Theological Argument For Evolution’, *JASA*, 38 (1986), 19-26 [Online document] <http://www.asa3.org/ASA/PSCF/1986/JASA3-86Murphy.html>

<sup>38</sup> George L. Murphy, ‘Chiasmic Cosmology: A Response to Fred Van Dyke [38.1 p. 11]’, *PSCF*, 38:2 (1986), 124-126 [Online document] <http://www.asa3.org/ASA/PSCF/1986/JASA6-86Murphy.html>



*(B) Arthur R. Peacocke*

Whereas FI is a relative newcomer to the interface, the work of Peacocke has been a mainstay of science-theology work for over thirty years. His contribution represents perhaps the most developed theology to have arisen here and is a classic example of what Barbour refers to with the *integration* model of science-theology interaction. We find in Peacocke's theology a constant interaction of findings from the biological (and particularly the evolutionary) sciences, and a deep-seated desire to reinterpret Christian doctrine in consonance with these findings.

(i) As with FI, Peacocke discusses evolutionary movement in terms of the creative interplay of chance and law-like behaviour, which allows for a thorough exploration of the full range or gamut of potentialities within matter for evolution, by random natural variations in DNA. This does not suggest some mythological or metaphysical status for chance, because there can be order at higher levels of organisation even when lower levels are random<sup>39</sup>, and because mutation is random with respect to any biological consequences.<sup>40</sup> Nonetheless, the interplay of chance and law are sufficiently creative that "the emergence of life was inevitable but the form it was to take remained entirely open and unpredictable."<sup>41</sup> This represents what Peacocke refers to as *propensities* (i.e. phenomena that arise with greater frequency) within evolutionary history. These are complexity, information-processing/-storage, capacity for pain and suffering, self-consciousness and language.<sup>42</sup>

<sup>39</sup> Arthur R. Peacocke, 'Biological Evolution and Christian Theology - Yesterday and Today', in John Durant (ed.) *Darwinism and Divinity: Essays on Evolution and Religious Belief* (Oxford: Basil Blackwell, 1985), 101–130, (citation, 117). Peacocke argues for a very specific understanding of chance; in this case it is not to be regarded (*pace* Mackay and Pollard) as the mere ignorance of parameters. It is instead the intersecting of causally unrelated chains. (Arthur R. Peacocke, 'Chance and the Life Game', *Zygon*, 14:4 (1979), 301–22, (citation, 304–306))

<sup>40</sup> Arthur R. Peacocke, 'The Challenge and Stimulus of the Epic of Evolution to Theology', in Steven Dick (ed.) *Many Worlds: The New Universe, Extraterrestrial Life and the Theological Implications* (Radnor, PA: Templeton Foundation Press, 2000), 89–117, (citation, 103)

<sup>41</sup> Arthur R. Peacocke, *God and the New Biology* (London: J. M. Dent, 1986), 63

<sup>42</sup> Arthur R. Peacocke, 'The Cost of New Life', in John Polkinghorne (ed.) *The Work of Love: Creation as Kenosis* (Grand Rapids, MI: Eerdmans; London: SPCK, 2001), 21–42, (citation, 29–33). For an extended treatment of this see Arthur R. Peacocke, *Theology for a Scientific Age: Being and Becoming – Natural, Divine and Human* (enlarged edition) (London: SCM, 1993), (citation, 62–69)

The innate creativity of chance, law and these propensities does not in the least negate the reality of divine action or divine purpose but it does mean that we can avoid the notion of “a deterministic plan fixing in advance all the details of the structure(s) of what eventually emerges with personal qualities.”<sup>43</sup> Rather than invoking acts of special creation,<sup>44</sup> we can argue that the course of evolution is both naturalistic *and* implemented by general providence.<sup>45</sup> The point here is that the ‘givenness’ (contingency?) of these properties of the natural order reflects the fact that these are God-endowed and so represent a *divine* “eliciting of the potentialities that the physical cosmos possessed *ab initio*.”<sup>46</sup> As with FI, there is a particular emphasis on chance here which can be likened to “the search radar of God, sweeping through all the possible targets available to its probing.”<sup>47</sup> The creativity of evolution therefore is what we should expect as the result of continuous divine action,<sup>48</sup> which involves a dynamic sustaining of this world process.<sup>49</sup> God acts by “giving continuous existence to a process that has a built-in creativity”.<sup>50</sup> This is a doctrine of *creatio continua*, wherein we see that “God has been creating all the time through matter and the 'laws' governing its transformations.”<sup>51</sup> As such, God is always the Creator and always creating – he is *semper Creator*.<sup>52</sup>

---

<sup>43</sup> Peacocke, ‘The Cost of New Life’, 33.

“To believe in God as creator is to see and read cosmic evolution as God’s action, an expression of divine purpose – along with tracing its naturalistic processes, analysed by the sciences.” (Arthur R. Peacocke and Jack Dominian, *From Cosmos to Love: The Meaning of Human Life* (London: Darton, Longman and Todd, 1976), 20-21)

C.f. Arthur R. Peacocke, *Creation and the World of Science* (Oxford: Clarendon Press, 1979), 167; Peacocke, *God and the New Biology*, 64, and Peacocke, ‘The Cost of New Life’, 26

<sup>44</sup> Arthur R. Peacocke, ‘Biological Evolution and Christian Theology Today’, *Theology*, 87/715 (1984), 35-43, (citation, 39)

<sup>45</sup> Peacocke, ‘The Cost of New Life’, 33

<sup>46</sup> Peacocke, ‘The Challenge and Stimulus of the Epic of Evolution to Theology’, 104. C.f. Peacocke, ‘The Cost of New Life’, 21 and 27

<sup>47</sup> Peacocke, *Creation and the World of Science*, 95

<sup>48</sup> Peacocke, *God and the New Biology*, 98

<sup>49</sup> Peacocke, ‘The Challenge and Stimulus of the Epic of Evolution to Theology’, 109

<sup>50</sup> Peacocke, ‘The Cost of New Life’, 23. C.f. Arthur R. Peacocke, ‘The Nature and Purpose of Man in Science and Christian Theology’ *Zygon*, 8:3-4 (1973), 373-394, (citation, 384)

<sup>51</sup> Arthur R. Peacocke, *Science and the Christian Experiment* (London: Oxford University Press, 1971), 130

<sup>52</sup> Peacocke, ‘The Challenge and Stimulus of the Epic of Evolution to Theology’, 109

(ii) For Peacocke, the world exhibits an ongoing evolutionary creativity. The world and worldly interactions are “always in process”.<sup>53</sup> The God-world relationship reflects this dynamism, in that it must involve time,<sup>54</sup> and so is one of continuous and creative divine action.<sup>55</sup> Peacocke fleshes out this dynamic understanding of the God-world relationship in a panentheistic scheme, whereby the divine being “includes and penetrates the whole universe, so that every part of it exists in Him but (as against pantheism) that His Being is more than, and is not exhausted by, the universe.”<sup>56</sup> This does not deny the otherness of God and the world, but rather reflects the internalism of this relationship.<sup>57</sup> In terms of divine action, if God is within the world then God operates through natural laws.<sup>58</sup> Indeed, Peacocke argues “the natural, causal, creative nexus of events *is* itself God's creative action.”<sup>59</sup> The processes of the natural order, including those to be found within evolution, are “God-acting-as-Creator, God *qua* Creator.”<sup>60</sup> It is important not to confuse this with a pantheistic position, because here the processes are not God but the action of God, in particular that of the Holy Spirit.<sup>61</sup> In other words, God sustains “a process that itself brings forth the new: thereby God is creating.”<sup>62</sup>

<sup>53</sup> Peacocke, *Theology for a Scientific Age*, 61-62. C.f. Peacocke, *Science and the Christian Experiment*, 123

<sup>54</sup> Arthur R. Peacocke, ‘The Challenge of Science to the Thinking Church’, *Modern Believing*, 36:4 (1995), 15-26, (citation, 19). Interestingly, Murphy also displays a similar nervousness with regard to creation *ex nihilo*. (Murphy, ‘Chiasmic Cosmology and Creation's Functional Integrity’)

<sup>55</sup> Peacocke, *Science and the Christian Experiment*, 124

<sup>56</sup> Arthur R. Peacocke, ‘A Response to Polkinghorne’, *S&CB*, 7:2 (1995), 109-115, (citation, 109-110), quoting from F. L. Cross and E. A. Livingstone (eds.) *Oxford Dictionary of the Christian Church* (Oxford: OUP, 1983), 1027

<sup>57</sup> Arthur R. Peacocke, *Intimations of Reality: Critical Realism in Science and Religion* (Notre Dame: University of Notre Dame Press, 1986), 64. C.f. Peacocke, *God and the New Biology*, 96

<sup>58</sup> Arthur R. Peacocke, ‘The Molecular Organization of Life’, in I. T. Ramsey (ed.) *Biology and Personality: Frontier Problems in Science, Philosophy and Religion* (Oxford: Basil Blackwell, 1965), 17-39, (citation, 35)

<sup>59</sup> Peacocke, *Intimations of Reality*, 63. C.f. Peacocke, ‘Biological Evolution and Christian Theology - Yesterday and Today’, 124

<sup>60</sup> Peacocke, ‘The Challenge and Stimulus of the Epic of Evolution to Theology’, 110

<sup>61</sup> Peacocke, *God and the New Biology*, 96

<sup>62</sup> Peacocke, ‘The Challenge and Stimulus of the Epic of Evolution to Theology’, 110. C.f. *Ibid*, 97 and Peacocke, *God and the New Biology*, 95

(iii) So far Peacocke's work shows a great deal of parallelism with Van Till's basic FI argument. He moves closer to Murphy's variation when he argues that for the worldly processes and laws to have intrinsic reality, then we have to conceive of a divine kenosis, or self-limitation.<sup>63</sup> More specifically, the natural sciences point to a divine self-limitation in omniscience and omnipotence;

God has so made the world that there are certain areas over which he has chosen not to have power.<sup>64</sup>

This self-limitation has a dual nature; on the one hand, God limits his action in order to respect the regularities observed within the natural order.<sup>65</sup> On the other hand, there is a self-limitation of God due to "the nature of the natural order he himself has created".<sup>66</sup> For instance, because God creates a world in which the future does not exist, then the divine knowledge of future states is inferential, and the divine omniscience is limited.<sup>67</sup> This self-limitation of omniscience is for the sake of the autonomy of the created order. This is particularly so for humans, because if we are to be free then "God cannot know certainly what we will decide."<sup>68</sup> However, the whole created order has "a certain autonomy" to develop and progress in a manner which God *chooses* not to control *in toto*.<sup>69</sup> There is no guarantee for instance of the realisation of any specific evolutionary goal.<sup>70</sup> However, God not only takes the risk in creation of frustrated goals, but also of a divine suffering, "a self-inflicted

---

<sup>63</sup> Peacocke, *Science and the Christian Experiment*, 156. C.f. Peacocke, 'The Nature and Purpose of Man in Science and Christian Theology', 384

<sup>64</sup> Arthur R. Peacocke, 'Science and God the Creator', in John Marks Templeton (ed.) *Evidence of Purpose: Scientists Discover the Creator* (New York: Continuum, 1996), 91-104, (citation, 100)

<sup>65</sup> Arthur R. Peacocke, 'The Challenge of Science to Theology and the Church', in D. W. Hardy and P.H Sedgewick (eds.) *The Weight of Glory: A Vision and Practice for Christian Faith: The Future of Liberal Theology; Essays for Peter Baelz* (Edinburgh: T. & T. Clark, 1991), 37-53, (citation, 44)

<sup>66</sup> Ibid. 44

<sup>67</sup> Arthur R. Peacocke, 'Response to Davis', *S&CB*, 9:2 (1997), 145-147 (citation, 146). C.f. Peacocke, 'Science and God the Creator', 101; Arthur R. Peacocke, 'Science and God the Creator', *Zygon*, 28:4 (1993), 469-484, (citation, 482) and Peacocke, 'The Challenge of Science to the Thinking Church', 19

<sup>68</sup> Peacocke, 'The Challenge of Science to Theology and the Church', 40. C.f. Peacocke, 'Biological Evolution and Christian Theology - Yesterday and Today', 125 and Peacocke, *Creation and the World of Science*, 197

<sup>69</sup> Arthur R. Peacocke, 'God's Interaction with the World: The Implications of Deterministic "Chaos" and of Interconnected and Interdependent Complexity', in *CAC*, 263-287, (citation, 281)

<sup>70</sup> Peacocke, 'The Cost of New Life', 27

vulnerability to the created processes in order to achieve an overriding purpose: the emergence of free persons.”<sup>71</sup>

(iv) This ‘risky’ form of divine action is best modelled through the musical imagery of improvisation, especially a composer (Bach, it seems for preference) extemporising a fugue *via chance*.<sup>72</sup> Peacocke also uses musical imagery to discuss immanence and transcendence. There is no doubting the transcendence of a composer to a piece of music written by that composer.<sup>73</sup> Moreover, when listening to a piece of music, the composer, *qua* composer is to be found only in the music itself. He models such divine action as whole-part constraint. This is divine action understood to occur at supervening levels of reality, and so God is able to constrain events within sub-levels of reality without intervening.<sup>74</sup> This would be through a transfer of information,<sup>75</sup> rather than a *causal* divine action, which would require the input of energy into the universe, and so contravene the second law of thermodynamics. The rationale for the top-down causation stems from Peacocke’s emergentist monism wherein new forms of matter and organization appear over time.<sup>76</sup> Peacocke then defines these different levels of emergent hierarchy as different levels of reality.<sup>77</sup> Divine action as whole-part constraint would involve altering the confluence of apparently independent causal chains, through constraints exerted upon “the whole interconnected and interdependent system of the whole Earth in the whole cosmos which is in and present to God”.<sup>78</sup> On such an

<sup>71</sup> Ibid. 38-40

<sup>72</sup> Peacocke, ‘The Challenge and Stimulus of the Epic of Evolution to Theology’, 104. C.f. Peacocke, *God and the New Biology*, 97. This ties in nicely with Peacocke’s understanding of chance as a form of cosmic exploratory property. Chance enables the exploration of the full gamut of evolutionary possibility, and the term ‘gamut’ is itself a musical term! Peacocke, ‘Chance and the Life Game’, 316

<sup>73</sup> Arthur R. Peacocke, ‘Biological Evolution – A Positive Theological Appraisal’, in *EMB*, 357-376, (citation, 359-360)

<sup>74</sup> Peacocke, ‘God’s Interaction with the World’, 282-283. He rightly argues that the idea of an intervening God is difficult because it “appears to presuppose that God is in some sense ‘outside’ the created world and has in some way, not specified, to come back into it to achieve his purpose.” (Peacocke, *Theology for a Scientific Age*, 141).

<sup>75</sup> Peacocke, ‘God’s Interaction with the World’, 283. For more on the nature of this ‘information’ see n28 in particular.

<sup>76</sup> Peacocke, ‘The Cost of New Life’, 22

<sup>77</sup> Ibid. 23. For a contemporary treatment of emergent monism and supervenience, see Joseph A. Bracken, S. J., ‘Supervenience and Basic Christian Beliefs’, *Zygon*, 36:1 (2001), 137-152

<sup>78</sup> Peacocke, ‘Biological Evolution – A Positive Theological Appraisal’, 369



understanding, God represents the ultimate boundary condition for the whole cosmos and can therefore shape the occurrence of particular patterns of events.<sup>79</sup> Peacocke uses the mind-body model here but acknowledges that emergent monism is a problematic analogy.<sup>80</sup>

### *(C) Process Theology*

In our limited space we cannot hope even to scratch the surface of Process thought as a whole, and so here we are restricting ourselves to a number of Process-influenced authors who have written on the subject of divine action and evolution. These authors are Norman Pittenger, L. Charles Birch, Ian Barbour and John F. Haught. To be sure these authors have very differing emphases and concerns; Pittenger is noted for his evolutionary Process Christology, whilst Haught is noted for a consistent emphasis on evolution and theodicy. Nonetheless we wish to treat the work of these authors as a whole, because of the underlying commonalities stemming from Process motifs.

(i) The basic description of the evolutionary process as it is interpreted by Process thought is very similar to what we have just seen in the work of Arthur Peacocke. Barbour argues that evolution is only directional in terms of a general increase in complexity, responsiveness and awareness, and that evolutionary dead ends are always possible. As such, the process is marked by contingency, i.e. the actualisation of certain potentials at the cost of others.<sup>81</sup> Therefore, evolution involves chance, law and history. The last point reflects the inheritability of the transient patterns generated through chance and law. Evolution is the concrete realisation of inherent

<sup>79</sup> Ibid. 369. Hence, Peacocke can argue against Teilhard's law of complexity/consciousness on the grounds that although consciousness does require a certain degree of complexity, the latter exists as "*particular forms*". (Arthur R. Peacocke, 'The Kindling of the Divine Flame: Some Reflections on Natural Becoming, Complexity, and the Humanum', *Studies in Science and Theology*, 1 (1993), 115-131, (citation, 122))

<sup>80</sup> Peacocke, 'God's Interaction with the World', 285. For criticism of Peacocke on this point, see Jonathon Doye, Ian Goldby, Christian Line et al., 'Contemporary Perspectives on Chance, Providence and Free Will', *S&CB*, 7:2 (1995), 117-139, (citation, 123)

<sup>81</sup> Barbour, *Religion and Science*, 237



worldly potentials, but these only become concrete through time.<sup>82</sup> The details of evolution, however, are more akin to Teilhard's concept of the Within, in that panpsychism is a basic premise of Process thought;

The universe is a universe of subjects as well as objects.<sup>83</sup>

The mentalist or ecological model argues that matter always experiences.<sup>84</sup> This leads to a Teilhard-like affirmation of continuity between all levels of reality and all stages of evolution. As Birch argues, "all are organisms."<sup>85</sup> For instance, we must disavow any absolute distinctions between living and non-living entities or mind and matter.<sup>86</sup> For Birch, following Hartshorne, this continuity in experience is the only way to explain that which limits chance and contingency and so enables evolutionary progress.<sup>87</sup> Fascinatingly, this leads to an explicit affirmation of an implicit aspect of Teilhard's thought – cultural evolution occurs at every level of reality. This form of evolution requires the response of evolving entities to divine persuasion, and this occurs throughout the process down to the simplest entities.<sup>88</sup> In summary, evolution is "the evolution of subjects."<sup>89</sup>

(ii) Process thought disavows creation *ex nihilo*.<sup>90</sup> For Birch, the biblical concept of creation is to do with dependence and not origins.<sup>91</sup> Therefore, we find "no real distinction between an original creation and continuing creation."<sup>92</sup> For Suchocki, "God is *always* Creator through call and response."<sup>93</sup> God has the priority of status,

<sup>82</sup> Charles Birch, 'Religion and Nature', in Kevin J. Sharpe and John M. Ker (eds.) *Religion and Nature – with Charles Birch and Others* (Auckland: The University of Auckland Chaplaincy, 1984), 1-21, (citation, 14)

<sup>83</sup> Ibid. 7

<sup>84</sup> Ibid. 11

<sup>85</sup> Ibid. 11

<sup>86</sup> Barbour, *Religion and Science*, 289-290. C.f. Birch, 'Religion and Nature', 7

<sup>87</sup> Charles Birch, *On Purpose* (Kensington, NSW: New South Wales University, 1990), 41

<sup>88</sup> Ibid. 43

<sup>89</sup> L. Charles Birch, 'Neo-Darwinism, Self-Organization, and Divine Action in Evolution', in *EMB*, 225-248, (citation, 236)

<sup>90</sup> Barbour, *Religion and Science* 295

<sup>91</sup> L. Charles Birch, *Nature and God* (London, SCM Press, 1963), 84

<sup>92</sup> Ibid. 85

<sup>93</sup> Suchocki, 'Process Theology and Evolution', 58. C.f. Norman Pittenger, *God's Way with Men* (London: Hodder and Stoughton, 1969), 109

but not an absolute temporal priority. God was never without a universe, and is constantly presented with (or confronted by) a world with a degree of self-determination and actualisation. Therefore, God is not to be considered as the sole actor within evolutionary and cosmic history, and so he is likened to “the leader of a cosmic community.”<sup>94</sup> Nonetheless, because God provides each occasion with the all-decisive initial aim, then every occasion is dependent upon God for its existence and the range of possibilities it can actualise. Novelty arises through the divine offering of alternative possibilities and the entities self-determined actualisation or self-creation.<sup>95</sup> This understanding of the doctrine of creation leads in Process thought to a panentheistic model of the God-world relationship, which posits the interdependence of God and the world in internal relationships.<sup>96</sup> God includes all beings “or he includes nothing.”<sup>97</sup> God is operative - immanent - throughout the created order, but this divine immanence does not exhaust the nature of God.<sup>98</sup> Indeed, the divine transcendence can be likened to the manner in which a man transcends his actions.<sup>99</sup> It is the “utter inexhaustibility of the divine love” which suffices for every occasion.<sup>100</sup> The point of affirming both immanence and transcendence is to affirm that God is involved in time and is therefore affected by the God-world relationship, and yet is “eternal and unchanging in character and purpose.”<sup>101</sup>

(iii) Although Process thought eschews the concept of creation *ex nihilo*, there is still a marked emphasis on the divine creativity, and the result is very similar to Teilhard’s conclusions. Process understands creativity as the eliciting of a response from the natural order. Creation is “*the concrete realization of what is potentially possible in the universe.*”<sup>102</sup> Because this only occurs through the trial and error of evolution, Birch argues that divine action must therefore take the form of

<sup>94</sup> Barbour, *Religion and Science*, 322

<sup>95</sup> Ibid. 296

<sup>96</sup> Birch, ‘Religion and Nature’, 11

<sup>97</sup> Ibid. 8

<sup>98</sup> Pittenger, *God in Process*, 17. C.f. Pittenger, *God’s Way with Men*, 137

<sup>99</sup> Pittenger, *God in Process*, 25

<sup>100</sup> Pittenger, *God’s Way with Men*, 137

<sup>101</sup> Barbour, ‘Five Models of God and Evolution’, 438

<sup>102</sup> Birch, *Nature and God*, 93

persuasion.<sup>103</sup> God's activity is "more akin to persuasion than compulsion."<sup>104</sup> The divine love is causally effective, in that it can evoke a response from the other without impinging upon its freedom. Because God's action is the evocation of a response, then it is most efficacious in those entities with the greatest capacity to respond – i.e. humans. Correspondingly, divine action becomes less effective for less responsive entities.<sup>105</sup> At these lower levels, especially within the inanimate order, God's actions consist almost solely in maintaining regularity;

God's purpose for low-level beings is that they be orderly; God's gift is the structuredness of the possibilities they exemplify.<sup>106</sup>

Returning to the concept of creativity, this means that God confronts the world with "the lure of unrealised possibility."<sup>107</sup> This is a non-mechanistic (or non-causal, as Peacocke would say in a slightly different context) divine action, because it is a lure of value and so *a final cause*.<sup>108</sup> Through this luring activity, God persuades occasions or entities to create or make themselves.<sup>109</sup> What is achieved in evolution is not progress, but "creative advance" or "novelty".<sup>110</sup> God 'creates' in that he evokes new subjects into being and preserves their achievements or arrangements. We cannot refer to this as design, because this implies a preconceived plan. Instead, the term purpose is preferred, because nothing is completely determined.<sup>111</sup> Regardless of the particular level, or the form of creaturely action, God's influence is always to be regarded as one amongst many.<sup>112</sup> The point of this is that this leaves room for spontaneous response and creaturely self-determination. God's purpose within this process is to lure that which is relatively disordered towards new degrees

---

<sup>103</sup> L. Charles Birch, 'Creation and the Creator', *Journal of Religion*, 37 (1957), 86-98, (citation, 91). C.f. Marjorie H. Suchocki, 'Process Theology and Evolution', in Bas Van Irsel (ed.) *Evolution and Faith: Concilium 2000/1* (London: SCM Press, 2000), 53-61, (citation, 55)

<sup>104</sup> Barbour, *Religion and Science*, 295

<sup>105</sup> Ibid. 295

<sup>106</sup> Ibid. 296

<sup>107</sup> Birch, *Nature and God*, 93

<sup>108</sup> Ibid. 96

<sup>109</sup> Norman Pittenger, 'The Divine Activity', *Encounter*, 47:3 (1986), 257-266, (citation, 261-262)

<sup>110</sup> Ibid. 243

<sup>111</sup> 244-246. God is in effect the explanatory principle for evolution. (Norman Pittenger, *The Word Incarnate: A Study of the Doctrine of the Person of Christ* (Welwyn: James Nisbet, 1959), 166)

<sup>112</sup> Birch, 'Religion and Nature', 7-8

of completeness (or complexity<sup>113</sup>) and as such evolution can be regarded as “a fighting frontier of progressive integration.”<sup>114</sup>

(iv) Barbour admits that by the standards of the Western tradition, the power of the God of Process thought is “severely limited”, especially at lower levels of reality where events are controlled by their past and have a weaker capacity for responding to the divine lure.<sup>115</sup> These characteristics of God “are not voluntary and temporary but metaphysical and necessary-though they are integral to God’s essential nature and not antecedent or external to it.”<sup>116</sup> In Process thought, the created order itself limits God’s ability to act.<sup>117</sup> We might also add that, as with Peacocke, there is a general consensus within Process thought to the effect that God has no apprehension of future events. For Pittenger, this means that God can be surprised, and can experience the joy of genuine novelty.<sup>118</sup> However, some Process advocates do prefer to talk in terms of kenosis and divine self-limitation.<sup>119</sup> John F. Haught argues thusly because of his concern for evolutionary theodicy, in which the randomness and suffering of evolution would seem to deny the existence of a loving God.<sup>120</sup> Haught’s alternative is to characterise divine love by “its authorizing creation to strive for genuine independence vis-à-vis its creator.”<sup>121</sup> Indeed, genuine divine love restrains itself “precisely in order to give the world *the space in which to be and become* something distinct from the creative love that constitutes it as other.”<sup>122</sup> As such, we should expect randomness and a lack of direction in a universe in relation to a God of

<sup>113</sup> Suchocki, ‘Process Theology and Evolution’, 55

<sup>114</sup> Birch, *Nature and God*, 99

<sup>115</sup> Ian G. Barbour, ‘Five Models of God and Evolution’, in *EMB*, 419-442, (citation, 438). This was one of our suspicions about the multiple in Teilhard’s work.

<sup>116</sup> *Ibid.* 440

<sup>117</sup> Pittenger, *God’s Way with Men*, 33-34

<sup>118</sup> *Ibid.* 158

<sup>119</sup> Norman Pittenger uses the image of God as a loving Father who wishes the best for his children, but *refuses* to achieve this by coercion. (*Ibid.* 102. C.f. 109-110). In a manner similar to Polkinghorne, Pittenger also uses the model of God as a chess player to describe God’s self-limited interaction with the natural order. (Norman Pittenger, *The Principles and Practices of the Christian Faith* (London: SCM, 1952), 52). However, in both Pittenger and Haught this self-limitation concept is contradicted by other references to a necessarily attenuated divine ability or knowledge.

<sup>120</sup> John F. Haught, ‘Evolution, Tragedy, and Hope’, in Ted Peters (ed.) *Science and Theology: The New Consonance* (Boulder, Colorado: Westview Press, 1998), 228-243, (citation, 234-235)

<sup>121</sup> *Ibid.* 234

<sup>122</sup> *Ibid.* 234. My italics

infinite love. Haught argues that the original creation would have involved a kenosis, a divine contraction, allowing the cosmos to “stand forth on its own and then to evolve as a relatively autonomous reality distinct from its creative ground.”<sup>123</sup> This same divine self-withdrawal also allows for the ongoing evolutionary creation (*creatio continua*) of the world.<sup>124</sup> The evolutionary process does not therefore represent a plan, but rather God’s “letting be.” This is the message of the Cross – the “self-absenting” of God, which message provides a satisfying interpretation of the evidence of evolution.<sup>125</sup>

(v) For Haught, an unrestrained divine action or presence would leave no room (or space!) for the world to be itself.<sup>126</sup> God *intends* the independence and freedom of the world. The divine kenosis allows for the otherness of the world and so its own achieving of a new future through its relatively autonomous evolutionary mechanisms. Haught argues that GPS (or “design space” as he calls it following Dennett) is derived from the divine generosity that does not insist on immediately and directly actualising all potential genomes.<sup>127</sup> As with advocates of FI, Haught sees the vastness of Design Space “as the overflowing gift to the world of God’s compassionate concern that the world be given a virtually unrestricted scope and time to “become itself.””<sup>128</sup> Haught rightly points out that a fully deterministic theism is incoherent because the divine love posits the otherness of the creaturely beloved. If the world is merely the direct and immediate implementation of a divine plan, then it is only an emanation. God can only transcend a world that is truly distinct from the divine being.<sup>129</sup>

---

<sup>123</sup> Ibid. 234

<sup>124</sup> John F. Haught, ‘Darwin’s Gift to Theology’, in *EMB*, 393-418, (citation, 398)

<sup>125</sup> Haught, ‘Evolution, Tragedy, and Hope’, 235. It is also the “self-abandonment” of God. (Haught, ‘Darwin’s Gift to Theology’, 397). He suggests that we “suppose that “God” is less concerned with imposing a plan or design on this process [evolution] than with providing it with opportunities to participate in its own creation.” (John F. Haught, *God After Darwin: A Theology of Evolution* (Boulder, CO/Oxford: Westview Press, 2000), 6)

<sup>126</sup> Haught, ‘Evolution, Tragedy, and Hope’, 234. As Birch puts it, for God to have complete control over the natural order “world would be the same as to annihilate it.” (Birch, *On Purpose*, 93)

<sup>127</sup> Haught, ‘Darwin’s Gift to Theology’, 406

<sup>128</sup> Ibid. 407

<sup>129</sup> Ibid. 407, n46

**(D) Critique**

Our intention in this chapter has been to provide a very brief summary of some of the key theological motifs at the interface. Naturally, this has been a very selective process, as we are particularly concerned with evolution and with those motifs that are specifically related to the createdness of the process. Similarly, our critique must be selective, as we are concerned with how well or otherwise createdness is secured in these positions. Therefore, in this subsection we must focus on whether or not the motifs here are compatible with our grammar or not, and whether we can use them in our next chapter when we attempt a theological interpretation of evolution from the perspective of createdness.

(i) All three positions represented here focus heavily on the inherent creativity of the evolutionary process, and the natural order in general. The theological rationale for this comes out most clearly amongst the FI advocates, but it is important for both Peacocke, Process thought and indeed for Teilhard as well. This creativity demonstrates the relative autonomy and so the createdness of the natural order. The importance of this for our purposes is first that it is *a functional parallel to Gunton's transcendentals*. This form of argument *to design* (natural theology is an argument *from design*) makes it clear that a prior belief in a Creator God should lead us to expect that the natural order is dynamic, relational, particular but also creative. We can argue in this way by noting Van Till's fascinating conclusion that special creationism and ID actually reach negative conclusions about divine creativity and divine action. It is these latter positions that have a potential for reflexive Pantheism on this issue by arguing that divine and creaturely creativity are somehow mutually exclusive.

(ii) The notion of inherent creaturely creativity might safeguard against reflexive Pantheism, but only if we fully emphasise that this is indeed *creaturely* creativity. Van Till makes the point through the motif of relative autonomy – the evolutionary



process possesses a *gifted* capacity for development. Underlying this is the divine prevenience, which is highlighted primarily by the doctrine of creation *ex nihilo*. This doctrine seems to cause a certain nervousness for FI advocates other than Van Till and is rarely affirmed by Peacocke, although without an outright dismissal, but to its credit Process thought makes its objections to this doctrine clear. However, all three positions can affirm the next supporting motif for divine prevenience – an ongoing God-world relationship. Without this there is a deistic route to reflexive Pantheism. Finally, all three positions make it clear that the creativity of the natural order is dependent on a (prevenient) divine action. The FI advocates say very little about this, although they clearly support at the very least a sustaining divine action. Van Till can emphasise the divine prevenience a little more by not ruling out miracles and by using a ‘royal’ model of divine action. Peacocke and Process thought both have much more helpful comments here by focussing on present tense, discrete divine actions, which is important because as we saw with Wiles, ‘monotone’ divine action is indistinguishable from bare God-world relationality. One final point here is that FI advocates and Peacocke can also affirm the divine *intentionality* – and so the intrinsic significance – behind these properties of the natural order. In fine, we can argue that creaturely creativity is not incompatible with divine prevenience, and can safely be regarded as a deliberate result of it.

(iii) All three positions discuss divine action and in differing degrees of detail, and there is a common and ultimately hazardous assumption here that divine action can be interventionist and that this would be harmful to the intrinsic reality of the created order. Although we will show that the basis of this argument is incompatible with createdness, there is still some underlying similarity here with Gunton’s motif of the *naturalness* of divine action. This can be found in the emphasis on sustaining divine action, the limitation of miracles to eschatological ends and the search for luring or non-deterministic whole-part/top-down divine action. No matter the consequences of such arguments, the concern is to show how divine action contributes to rather than endangers creaturely reality, and this point is vital to our argument in the next chapter. There are two other important arguments here against intervention. The first

is that intervention assumes a deistic God-world relationship that none of these authors would accept. The second is Van Till's observation that the notion of constant intervention would again raise the question of the type of world in which this would have to be the case. Neither of these would protect the createdness of evolution.

(iv) Just as the notion of 'intervention' as it is used in these positions is a double-edged sword, so is the evolutionary theodicy that we find in FI, Process and implicitly in Peacocke. This theodicy takes the form of a motif of divine suffering/passivity and/or the (self-)limitations on divine action to non-interventionist or non-deterministic forms. This argument is valuable in that it focuses attention on the importance of the natural order and the evolutionary process *for God*, which is of course the source of the intrinsic value of the natural order. Furthermore, as with any theodicy, one is constantly brought up against the apparent contradiction between the sovereign love of God and creaturely suffering. Whether or not this sensitive issue can ever be resolved adequately or not, we will have to address the issue of evolutionary theodicy again in a moment as a potential threat to the createdness of the process.

(v) The three positions we have discussed here all hold in common an affirmation of the basic principle of FI – it is unnecessary and undesirable to discuss divine action in evolution as a constant series of interventions into the process. Whilst this is vitally important, there is a danger here that this position will morph into the argument that divine action *need never occur*. This evidential claim for the *superfluity* of (deterministic or guiding) divine action is unwarranted by a concern for createdness or rational contingency, and instead veers towards the metaphysical. For example, we can see this happening when Van Till is led to conjectures on the nature of 'possibility space' that are not based on scientific evidence.<sup>130</sup> Indeed, he seems to threaten the contingent arrangement of this space by arguing that it *must*

---

<sup>130</sup> For more on metaphysical treatments of 'possibility space' see the next chapter.

have a richly (albeit divinely) provisioned structure. Significantly, this was also the result of Teilhard's blurring of the distinction between science and theology in his hyperphysics. Therefore, we must leave the question of divine interventions in evolution open.

(vi) What constitutes a divine intervention in the natural order? For FI, this would involve the bridging of a natural evolutionary 'gap' in the functional economy of the natural order. For Peacocke and perhaps for Process thought, divine intervention represents an energetic<sup>131</sup> disruption of worldly regularities. However, the problem here is that the divine prevenience is lost from sight. Gunton talks of a creaturely 'space' and divine action-in-relation as the interaction with, and *enabling* of created energies by uncreated divine energies. Thus we can conceive of natural regularities as the result of the sovereign governing of created energies by uncreated energies. In other words "[G]od does not alter the energy budget of the world but makes the world *use its energy* in new and unforeseen ways."<sup>132</sup> The point here is quite simple; even worldly regularities are the outworkings of specific divine acts and the divine will, and such regularity as we observe is based on the divine faithfulness and trustworthiness.<sup>133</sup>

---

<sup>131</sup> 'Energetic' in that it would involve a change in the net energy of the cosmos. An interesting question for further research would be that of whether such an infringement of the second law of thermodynamics is actually theologically problematic, given that the Ascension (as well as the taking up of Elijah into heaven) would appear to involve a loss of quantities of mass-energy from the cosmos.

<sup>132</sup> Niels Henrik Gregersen, 'Autopoiesis: Less than Self-Constitution, More than Self-Organization. Reply to Gilkey, McClelland and Deltete, and Brun', *Zygon*, 34:1 (1999), 117-138, (citation, 130). For the sake of fairness, we should point out that Gregersen comes to this conclusion from a radically different direction to Gunton, in that he is looking for aspects of creaturely causality in which we can posit non-interventionist divine action.

<sup>133</sup> Denis Alexander describes this well;

"All that exists only continues to do so because of his [God's] continued say-so. The properties of matter continue to be what they are because God wills that they should continue to have such properties." (Denis R. Alexander, *Rebuilding the Matrix: Science and Faith in the 21<sup>st</sup> Century* (Oxford: Lion, 2002), 314. C.f. Ibid. 326)

(vii) The concept of divine self-limitation is also central to the positions we have examined here. Murphy et al, Peacocke and Haught et al understand divine action to be restricted to sustaining action or *concursum* and non-deterministic forms, whilst simultaneously playing down the very possibility of miracles. Gunton follows a slightly more opaque route and argues for a prevenient divine action that enables creaturely actions through the gifting of the requisite ontological 'space'. This very definitely leaves room for miracles. The difficulty with divine self-limitation is that this implies that the God-world relationship is somehow competitive (i.e. divine prevenience and creaturely integrity are mutually exclusive), and so although Gunton's position requires some reconstruction it is preferable to a concept of divine self-limitation.

We are not simply avoiding the concept of divine self-limitation because it is not consonant with our grammar; rather, it is inherently problematic with regard to createdness and again seems to have the kind of evidential and metaphysical nature that is incompatible with science or theology. Therefore, in recent critique of Peacocke's thought we have the useful observation that the very notion of the forms that divine action can or cannot take seems based on rationalism rather than on a consideration of the contingent outworkings of the divine will.<sup>134</sup> The difficulty here is partly the hubris of determining in advance the nature of divine rationality or the divine character<sup>135</sup>, but even more seriously a very real danger of reflexive Pantheism in that there is an apparent conflation of divine and creaturely realities. God is of course self-limited in that he cannot contradict his own character, but this is not the case for laws of nature that are "not an irreducible part of God's character, but rather secondary reflections of it in creation."<sup>136</sup> Reducing divine action effectively to the outworkings of chance and law, in conjunction with the difficulties in distinguishing divine and creaturely action within Panentheism, leads us to a reflexive Pantheism, where creaturely processes *are substitutes for divine action*, as there is now little

---

<sup>134</sup> Whilst it is true that worldly regularity reflects the faithfulness and rationality of God, it is a rather large leap to move from this to the assumption that divine action that contradicts this regularity would be inconsistent with God's character. (Doye et al., 'Contemporary Perspectives', 129)

<sup>135</sup> Ibid. 132. Such a tendency is also very prominent in Teilhard's work.

<sup>136</sup> Ibid. 129, n43

room for special providence.<sup>137</sup> It is perhaps not surprising then that in one early remark, Peacocke can argue that chance and randomness have become “creative agents.”<sup>138</sup> This ‘animating’ of inanimate or unconscious matter lies at the heart of Teilhard’s notion of the multiple and the Within, but it is also at the heart of the panpsychism of Process thought. Process thought explicitly disavows creation *ex nihilo* and the divine prevenience.<sup>139</sup> Ultimately, Process cosmology presents us with a dualism “in which there are two eternal powers - God, and the power(s) over which he has no final control.”<sup>140</sup> This leads to an animation of matter such that Birch can argue that although the macroprocesses of evolutionary self-organization are perhaps mechanistic, at the microlevel they are based on patterns generated by the behaviour of individual and subjective entities.<sup>141</sup> Again, as with Teilhard’s Within, this degree of autonomy within the natural order is such that there is in effect a freedom to strive for or against progression and evolution, such that this freedom represents the

<sup>137</sup> Ibid. 129. Moreover, the concept of self-limitation has serious consequences for the nature of special Providence. For instance, if God does not know the future, then how can he know how much information - and of what sort - to input into the natural order? (Ibid. 131. C.f. Ernan McMullin, ‘Cosmic Purpose and the Contingency of Human Evolution’, *Theology Today*, 55:3 (1998), 389-414, (citation, 407)). This is only heightened by the improvisational form of divine action that accompanies this restricted divine omniscience. (Doye, et al., ‘Contemporary Perspectives’, 133). For more on the intrinsic difficulties with attempts to conceptualise non-interventionist divine action, see Dennis Biefeldt, ‘Can Western Monotheism Avoid Substance Dualism?’, *Zygon*, 36:1 (2001), 153-177, (citation, 162-173)

<sup>138</sup> Peacocke, *Creation and the World of Science*, 70. My italics

<sup>139</sup> Royce G. Gruenler, *The Inexhaustible God: Biblical Faith and the Challenge of Process Theism* (Grand Rapids, MI: Baker Book House, 1983), 33

<sup>140</sup> Ibid. 35. For example, note Pittenger’s careful effort to secure both God’s intimacy with the world without this involving a collapse into Pantheism. To do this Pittenger utilises trinitarian (or as he puts it, *Triunitarian* theology) to find a middle path between an absolute divine transcendence and immanence. He calls this concept the divine *concomitance* with the creation. (Norman Pittenger, ‘God “The One in Three, The Three in One”’, *Religion in Life*, 48 (1979), 93-100, (citation, 98). The use of ‘Triunitarian’ rather than ‘Trinitarian’ is indicative of a wider Process disquiet with the doctrine of the Trinity. Note the incipient modalism in the trinitarian thought of Lewis Ford. (Lewis Ford, ‘Process Trinitarianism’, *Journal of The AAR*, 43 (1975), 199-213, (citation, 207) C.f. Marjorie Hewitt Suchocki, ‘God, Trinity, Process’, *dialog* 40:3 (2001), 169-174, (citation, 173)) Essentially, we can see that God is *more* than the creation and yet at work *alongside* and *within* the creation. (Pittenger, ‘God “The One in Three, The Three in One”’, 98) We can go further; Lewis Ford argues that in fact *the world transcends God* “in the sense that each achieved actuality is something for itself alone and also something upon which the divine experience depends.” (Lewis Ford, ‘Contingent Trinitarianism’, in Joseph A. Bracken, S.J. and Marjorie Hewitt Suchocki, (eds.) *Trinity in Process: A Relational Theology of God* (New York: Continuum, 1997), 41-68, (citation, 45)) The God-world relationship on such an understanding loses any sense of divine sovereignty; it is a *symbiosis* in which the world requires God for order, and God requires the world for experience. (Ford, ‘Contingent Trinitarianism’, 48) Ford can go so far as to criticise a social doctrine of the Trinity precisely because it affirms that as triune God does not need the world, as the divine Persons enjoy a rich relationality between themselves! (Ibid. 50)

<sup>141</sup> Haught, ‘Evolution, Tragedy, and Hope’, 238



possibility of failure and disorder, and so “[a]ctualized creation and ‘estranged creation’ are identical.”<sup>142</sup> Therefore, the concept of divine self-limitation must be avoided as it opens the door to reflexive Pantheism.

(viii) We have already argued that the sensitive issue of theodicy makes evolutionary theodicy a potentially vital component of our argument, and indeed it is insofar as it posits the value of the natural order to God. However, the problem here is that we are again dealing with a metaphysical argument because it must use the findings of natural science in an evidential role for what is nominally a theological endeavour. Such value judgements on evolution or any natural process cannot be required of theologians by the findings of the natural sciences.<sup>143</sup> They are quite simply unscientific.<sup>144</sup> Consequently, we cannot affirm the createdness of evolution by denying the compatibility of the process with convenient divine action. Furthermore, if divine action as a sovereign directing agency is effectively unnecessary or even undesirable, then can we affirm divine intentionality behind any evolutionary event or outcome? It is certainly the case that the divine intentionality is minimised in Process Theology, as we saw in our exposition. For the other positions we can certainly affirm that the autonomy and creativity of the natural order is divinely intended. However, we can only affirm divine intentionality behind specific evolutionary events or outcomes if we minimise the ‘contingent’ aspects of evolution, i.e. if we adopt a gradualist perspective and/or interpret evolution literally as an unfolding of the latent potentialities of matter. If, on the other hand, we affirm the role of chance, contingent events, and a wider range of possible outcomes, then the divine intentionality becomes less clear, unless we affirm a divine perception of the whole of spacetime.<sup>145</sup> Because Peacocke and FI seem to emphasise chance and

<sup>142</sup> Birch, *Nature and God*, 104

<sup>143</sup> We should argue for the consonance of divine action and evolution “*despite* its contingency”. (McMullin, ‘Cosmic Purpose’, 400. My italics)

<sup>144</sup> Rolston, *Science and Religion*, 133

<sup>145</sup> Donald H. Wacome, ‘Theism, Christianity and the Grand Evolutionary Story’, in Jitse M. van der Meer (ed.) *Facets of Faith and Science, 4: Interpreting God’s Action in the World* (Lanham: University Press of America; Ancaster: Pascal Centre for Advanced Studies on Faith and Science, 1996), 143-154, (citation, 145). The strategy of using the law of averages, or arguing that in a sufficiently vast universe all required chance outcomes will be actualised, is still no guarantee that any outcome desired by God will be met. (McMullin, ‘Cosmic Purpose’, 402)



contingency, then we must raise a question mark over divine intentionality. It is perhaps even conceivable that any or all evolutionary features are *unwilled*, or even *contrary to the divine will*. This would imply the divinisation of evolution and those elements that do not concur with the divine will, as this would potentially place them *in opposition to God*.

### ***Conclusion***

Evolution illustrates the intrinsic and gifted creativity of the natural order. God has created a process with the potential to evolve through time without the need to posit evolutionary ‘gaps’ that must be bridged by intervening divine action. Such an assumption about the nature of this process is actually inimical to our conceptions of the nature of God and the nature of the Creator. These are all important lessons from the interface with science. However, the finer details of these lessons are slightly more problematic. The first is the correlation of creaturely creativity with divine (self) limitation, which implies that there is competitiveness between divine action and creaturely reality. Underlying this correlation is the notion of ‘interventionist’ divine action. Theology at the interface rightly notes that divine ‘intervention’ suggests divine absence is the norm within the God-world relationship. This is why special creationism and ID are particularly difficult concepts for divine action and createdness. However, the real problem with the notion of ‘intervention’, and one that affects these contemporary positions at the interface as well, is that this fails to account for the divine prevenience. It assumes that God is not governing the process of evolution except through intervention. This is inimical to createdness because the divine prevenience is the sole guarantee of the continuing existence and creativity of the natural order. When this is realised we can see why it is that even miracles are not interventionist, because they reflect the divine prevenience over the created order. Along with our grammar and the lessons we learnt from Teilhard’s work, these are the important pointers we must take into our next and final chapter.

## Chapter 9: Evolution from the Perspective of Createdness

### *Introduction*

In the previous chapter, we argued that amongst the fruitful material emerging from the science-theology interface, there were a number of recurring motifs that threatened the createdness of the evolutionary process and the natural order as a whole. However, this conclusion in isolation merely reiterates the point that createdness is significant for theology, and does not reveal whether or not a threat to createdness is also a threat to rational contingency, which is our basic premise as outlined in the introduction to the thesis. To make the case for the link between createdness and rational contingency, we shall examine some material from popular science that comes to very similar conclusions about the nature of evolution as we found it at the interface. Here we shall find that these examples of popular science are relying on a number of metaphysical assumptions about the range of creaturely capacities inherent within the evolutionary process. In other words, rational contingency is abandoned in favour of metaphysics. More importantly, we shall point out that these same metaphysical assumptions are present in the material we have examined at the interface, and so conclude that in this instance metaphysics has replaced createdness. In both the science-theology material and examples of popular science, the createdness and so the rational contingency of the natural order are threatened.

Once we have established that theology and the natural science can only be coherently related to one another through the concept of createdness, then we must ask about the form that a theology must take if it respects createdness and is in genuine dialogue with science. We have already argued that although such a theology is distinct in many respects, we must focus on the doctrine of Providence if we are to highlight its distinctive attributes. This involves first an identification of those motifs that are pertinent to our discussion, including some final deliberations on evolutionary Christology, eschatology and theodicy. Second, we have a

discussion of divine action-in-relation that incorporates both the essential motifs from the grammar (which we summarised at the end of the first section) and helpful motifs from Teilhard and the interface material. Third and finally, we provide a very simple model for divine action-in-relation in evolution. More specifically, we wish to discuss this divine action through one established scientific model for the process – GPS (Genetic Phase Space). By discussing divine action-in-relation as the work of the Son and Spirit in GPS, we can describe evolution as a creature governed by sovereign and prevenient divine action and as a process with its own created integrity.

### *(A) Popular Science, Metaphysics, and Evolution*

It has been the contention of our thesis that createdness is a theological linchpin, and without it the interaction between science and theology cannot do justice to either. In our discussion of Teilhard we noted that the absence of createdness tends to result in a scheme in which metaphysics is more prominent than either of these two disciplines. The situation is obviously less acute in material at the interface (although Process thought by its very nature bids fair to approach such a point) because of a more considered approach to the relationship between disciplines and simply because contemporary authors have more opportunity for criticism than Teilhard could enjoy. Nonetheless, we noted some symptoms of an incipient threat to the createdness of natural processes through a common emphasis on what we might call the superfluity and undesirability of divine action, at least in sovereign, governing or deterministic form. This dual emphasis obviously has a drastic effect on createdness because it impinges upon the notion of the divine prevenience and also has an effect on the natural sciences. Such an effect is rarely noticeable at the interface, because the conceptual traffic between science and theology is mostly one-way. It is, however, noticeable in some material from popular science that works from broadly similar perspectives on the extent and moral status of sovereign divine action, especially with respect to evolution. Therefore, in this first subsection we turn to examine the consequences of such thinking for the findings and methodology of the natural

sciences. In an important essay David L. Wilcox has argued that such assumptions about the absence of divine action in the works of Richard Dawkins and the late Stephen Jay Gould, both respected scientists and contributors to popular science, are based on a number of metaphysical and not scientific assumptions. In particular, Wilcox notes that assumptions are being made about the structure of Genetic Phase Space (GPS) – or “design space” as Haught and Van Till refer to it – which must be made in order to assume that divine action is unnecessary.<sup>1</sup>

(i) In *The Blind Watchmaker*, Dawkins argues for the efficacy of a neo-Darwinian, or more precisely, a gradualist<sup>2</sup> neo-Darwinian interpretation of evolution in order to explain the existence of biological complexity within the natural order. Dawkins argues that natural selection ‘favours’ small mutations, because they are more likely to occur<sup>3</sup> and are less likely to be harmful.<sup>4</sup> When such small changes are then filtered through non-random natural selection<sup>5</sup>, and coupled to the cumulative process of reproduction (wherein changes can be ‘remembered’ from one generation to another)<sup>6</sup>, they can account for extensive evolutionary change over relatively short periods of time.<sup>7</sup> To illustrate his point, Dawkins uses a computer program, *Biomorphs*, which mimics the essential features of the evolution of artificial

---

<sup>1</sup> GPS is the name given to a conceptual multidimensional array of all the possible and actual genomes (specific DNA ‘recipes’ for organisms) that are available to evolution through mechanisms of genetic change. This array is multidimensional because all genomes are to be considered to be arranged so that immediate neighbours are arranged one single mutation away from each other. The next step away is two mutations away, and so on. Mutation actualises genomes as organisms reproduce and produce mutants, thus bringing into being a specific genome that might until then only have been a possibility. Therefore, each and every evolutionary track or history “consists of a particular pathway, or trajectory, through genetic space [GPS].” (Richard Dawkins, *The Blind Watchmaker* (London: Penguin, 1988), 67). There have been some refinements of this idea over recent years, including one variation in which GPS increases over evolutionary time. On such an understanding, GPS consists solely of actual genomes.

<sup>2</sup> If we distinguish Dawkins and Gould by referring to the former as an advocate of gradualism and the latter as an advocate of punctuated equilibrium, we are not assuming any form of antagonism or incompatibility between these two concepts. As Dawkins rightly points out, Gould, Eldridge and other punctuationalists are themselves gradualist, but assume that gradual mutations occur in bursts and at a relatively accelerated rate. (Ibid. 243). Therefore, we use these terms advisedly, and we retain them because they give some insight into how Dawkins and Gould must interpret GPS differently.

<sup>3</sup> Ibid. 72

<sup>4</sup> Ibid. 73

<sup>5</sup> Ibid. 43

<sup>6</sup> Ibid. 46-49

<sup>7</sup> Ibid. xv

'Biomorphs'. The program mimics the existence of mutation and genes by coding for individual Biomorphs with a nine-digit variable 'genome'. There is also an analogue of embryonic development (where mutations must arise if they are to be inheritable), in the form of the coded branching of Biomorph structure. Reproduction is mimicked by giving any particular Biomorph a set of 'offspring' whose genomes are separated from the 'parent' by one mutation. Finally, there is a form of natural selection, in that the program user determines which Biomorph will go on to breed.<sup>8</sup> Dawkins uses this model to demonstrate how a wide variety of Biomorphs can be generated with only a few iterations of the program. In turn, he presents this as evidence that cumulative selection is an efficient, or perhaps the most efficient search mechanism through Biomorph GPS.<sup>9</sup>

Wilcox notes four areas of divergence between the Biomorph programme and the evolutionary process, all of which militate against the success of the programme. The first of these is the size of the probability space involved. The Biomorph genome is only nine digits and so has only  $10^9$  permutations to search through.<sup>10</sup> The mammalian genome on the other hand consists of 2.5 billion base pairs (digits), giving approximately  $10^{1,000,000,000}$  permutations.<sup>11</sup> Second, Biomorphs are able to 'search' a much wider proportion of their probability spaces than real organisms. Biomorphs show all possible offspring (which means that all accessible genomes are actualised), whilst the most fecund real organisms can only generate a vanishingly small fraction of possible offspring and their requisite genetic permutations. As such, it seems likely that finding the 'next step' in Biomorph evolution is significantly easier than it is for a real organism. Third, the viability of Biomorphs is significantly greater than reality. No Biomorph *has to* die without reproducing, and so no trajectory through Biomorph possibility space is impossible. However, most mutant organisms do die, and so there are such things as impossible trajectories in GPS. What makes Wilcox' argument particularly interesting is his account of the

---

<sup>8</sup> Ibid. 50ff

<sup>9</sup> Ibid. 66

<sup>10</sup> Wilcox for some reason states that Dawkins argues for 16 digits and so derives a value for the number of permutations of  $10^{16}$ . We have used 9 in both instances.

<sup>11</sup> However, not every DNA base has an equal chance of mutating, as there are biological mechanisms to prevent or inhibit mutation in DNA sequences (such as genes) that are essential to life.

assumptions which Dawkins must make about GPS, and which account for these three difficulties in his argument. He must assume the existence and likelihood of viable trajectories, and also a preponderance or high probability of those trajectories that are dependent upon minor sequence changes. However, how do we know that there are no isolated spots that could only be actualised by so many simultaneous point mutations that their actualisation through divine action is the simplest explanation? Quite simply, how would we be able to tell that an organism had not originated in such a manner? Fourth and finally, the rules governing Biomorph morphology are exterior to the program's internal environment. A particular sequence of numbers means a specific Biomorph due to these external programming instructions. Whilst DNA sequences also have such defined meanings, these definitions are "themselves encoded on the genome, and thus also part of GPS."<sup>12</sup> Therefore, according to gradualist naturalism, these biological definitions are to be explained only by the same formal causes (the search mechanisms of chance and law) as the sequences they define. But how can searching GPS give us any clue as to how that matrix was constructed? As Wilcox succinctly puts it;

Understanding morphogenesis means to explain the rules, not what they govern.<sup>13</sup>

Biomorphs therefore ably demonstrate the evolutionary power of neo-Darwinian mechanisms *if they are governed by an external and intelligent formal cause*. The aim of the program is of course to go further and "demonstrate that both formal and material causes are adequate in the *absence* of intelligence."<sup>14</sup> To determine this, we would have to know the probabilities involved in traversing GPS.<sup>15</sup> This cannot be done by simply investigating observed patterns of genetic change, because we cannot

<sup>12</sup> David Wilcox, 'How Blind the Watchmaker?', in John Marks Templeton (ed.) *Evidence of Purpose: Scientists Discover the Creator* (New York: Continuum, 1996), 168-181, (citation, 174)

<sup>13</sup> Ibid. 175

<sup>14</sup> Ibid. 175. For more on this criticism see Neil Broom, *How Blind the Watchmaker? Theism or Atheism: Should Science Decide?* (Aldershot: Ashgate, 1998), 144, and Michael Poole, 'A Critique of Aspects of the Philosophy and Theology of Richard Dawkins', *S&CB*, 6:1 (1994), 41-59, (citation, 53)

<sup>15</sup> Daniel C. Dennett acknowledges that certain assumptions must be made about GPS (or Design Space, or the Library of Mendel as he refers to it). For him, and for Dawkins, the assumption must be that "*nothing stops us* from going down any of the pathways that are open so far as physics is concerned." (Daniel C. Dennett, *Darwin's Dangerous Idea: Evolution and the Meanings of Life* (London: Penguin, 1996), 120, n11. My italics)



simultaneously determine the two different probabilities – the probability of an outcome if not directed, and the probability of its being directed - which this demonstration would require. The point of this is quite simple; if we knew the topology of GPS (which as we have already noted we do not), then we could identify probable trajectories for fossil history, and thus determine the likelihood of divine guidance. However, the structure of GPS is unknown; therefore to claim that divine action does not occur here is to discuss metaphysics and not science;

If we reject intelligent cause, we assume GPS is rich in linked viable probabilities. If we hold to intelligent cause, we realize that the GPS might be much poorer. The statement that GPS *must* have a structure that would allow gradual and undirected emergence is based on worldview assumptions, not on observations. The GPS becomes our “field of dreams,” its contours a projection of our metaphysics.<sup>16</sup>

It is interesting that we have again happened upon the rationalist ‘*must*’ that we found in Teilhard’s writings, and which is the enemy of rational contingency and so the basis of the scientific enterprise.

(ii) Stephen Jay Gould comes to a similar conclusion on divine action, whilst pursuing an apparently opposing course to Dawkins, due to his emphasis on evolutionary contingency. In his book *Wonderful Life*, Gould argues that the paleontological findings of the Burgess Shales demonstrate the importance of ‘history’ or contingent events for understanding the nature of evolution. His concern is to refute any sense of evolution as progress, whether in terms of increasing complexity or diversity.<sup>17</sup> To demonstrate his point he argues for a thought-experiment which he calls “replaying life’s tape.” If evolution is in any way orthogenetic, then the same evolutionary path and outcomes will arise if the history tape of evolution is rewound and replayed;

---

<sup>16</sup> Wilcox, ‘How Blind the Watchmaker?’, 175

<sup>17</sup> Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History* (Harmondsworth: Penguin, 1989), 29-48

Rewind the tape back into the neck of time, and you will always obtain the same prototypes, constrained to rise in the same general direction.<sup>18</sup>

However, if 'luck' or other non-Darwinian causes (such as meteor strikes) dictate survival, then a different result is likely to occur in evolution. This is not to advocate the sovereignty of pure chance, but rather a lack of predictability.<sup>19</sup> Gould insists that every step proceeds through some cause, but no particular step would ever occur in the same way twice, "because any pathway proceeds through thousands of improbable stages."<sup>20</sup> More precisely, the world will not turn out the same if there are "untold multitudes of low-probability outcomes, *and there is no guidance*".<sup>21</sup> Wilcox points out the assumptions about GPS that Gould must also make. For Gould, GPS must have a richly branched (and highly accessible) structure, whereas if evolutionary history has in fact been guided, then GPS may actually be otherwise empty. As Wilcox puts it, the assumptions made about the qualities of GPS are of an "essentially religious nature".<sup>22</sup> We are not assuming here that neo-Darwinism and

<sup>18</sup> Ibid. 50

<sup>19</sup> Ibid. 50. This is because he is advocating history or contingency, and not "the titration of determinism by randomness." (Ibid. 51). This would be more akin to Jacques Monod's position. He argues that "chance *alone* is at the source of every innovation, of all creation in the biosphere." (Jacques Monod, *Chance and Necessity: An Essay on the Natural Philosophy of Modern Biology* (tr. Austryn Wainhouse) (Harmondsworth: Penguin, 1997), 112) Of course, such chance is then subjected to the regularities of natural selection, to "the most implacable certainties." (Monod, *Chance and Necessity*, 118). His conclusion is the same, and equally metaphysical;

"A *totally* blind process can by definition lead to anything; it can even lead to vision." (Ibid. 98)

This is metaphysical because this is one step beyond methodological naturalism.

<sup>20</sup> Gould, *Wonderful Life*, 51

<sup>21</sup> Wilcox, 'How Blind the Watchmaker?', 179. My italics

<sup>22</sup> Ibid. 179. More recently, Steven L. Peck has made similar criticisms of Dawkins' use of another evolutionary model, that of the adaptive landscape. Unfortunately, Peck has made the same error as Dawkins in underplaying the significance of contingent starting conditions in the use of this model. (Steven L. Peck, 'Randomness, Contingency, and Faith: Is there a Science of Subjectivity?', *Zygon*, 38:1 (2003), 5-23, (citation, 15-16)). Similarly, Dawkins recommends a model for the evolution of the eye that only registers favourable mutations. Therefore, he is forced "to introduce a profoundly *purposeful* dimension." (Neil Broom, 'Atheistic Science: A Broth of Contradictions', in L. R. B. Mann (ed.) *Science and Christianity: Festschrift in Honour of Harold Turner and John Morton being the Papers and Discussion from a Symposium held in Auckland New Zealand April 21 2001*, 87-103, (citation, 95)). It is argued in Dawkins' defence that the model simply demonstrates the effects of natural selection, and so only reproduces positive mutations. (Ibid. 100-101, 102) However, as this fails to account for the potential numbers of neutral or harmful mutations (and these cannot of course be calculated), then the model simply demonstrates that the evolution of the eye is feasible given infinite time. We are not denying the evolution of the eye, nor are we advocating the need for divine intervention, but we are making the point that Dawkins seems to ignore contingency in favour of rationality.

neo-Darwinian mechanisms are insufficient for explaining evolution and evolutionary history.<sup>23</sup> Nor are we trying to reiterate Gunton's point that bad science and bad theology are connected.<sup>24</sup> Rather, we are pointing out that the natural sciences do not force us to disavow a governing divine action working (predominantly) through secondary causes in evolution. Therefore, in the thought of Peacocke and Process or FI advocates, we encounter a theological and not a scientific argument against controlling divine action in evolution. Why then would this argument be attractive? To discuss this, we must move on to discuss motives.

(iii) If the argument for a luring, informing, or perhaps merely conserving divine action in evolution is not a scientific argument, but a theological one, then we must evaluate the rationale for such an argument on its own theological merits. To do this we can critique a parallel argument, known as "the argument from imperfection", which is used by Dawkins and others to claim that the evidence of evolution points towards atheism or Deism. The heart of this argument lies in the assumption that God, a rational creator, would not act in such a manner as to result in the evolutionary process. For Stephen Jay Gould, "the proof that evolution, and not the fiat of a rational agent, has built organs lies in the imperfections that record a *history* or descent and refute creation from nothing."<sup>25</sup> If God were perfect in wisdom and ability, then "he would create only optimal or perfect designs".<sup>26</sup> Basing his argument on that of Gould, Paul Nelson constructs the following scheme;

<sup>23</sup> For evidence of this in Wilcox' work, see David L. Wilcox, 'A Blindfolded Watchmaker: The Arrival of the Fittest', in Jon Buell and Virginia Hearn (eds.) *Darwinism: Science or Philosophy?* (Richardson, TX: Foundation for Thought & Ethics, 1994), chapter 13 [Online Document] <http://www.leaderu.com/orgs/fte/darwinism/chapter13.html>

<sup>24</sup> For instance Dawkins makes the explicitly theological claim that divine action working through secondary causality is a *superfluous* notion. (Dawkins, *The Blind Watchmaker*, 316) The absence of reference to God in the findings and theories of natural science does not make God superfluous, and is indeed to be expected as we noted in the introduction to this thesis.

<sup>25</sup> Gould, *Hen's Teeth and Horse's Toes*, 160. C.f. Dawkins, *The Blind Watchmaker*, 91

<sup>26</sup> Paul A. Nelson, 'A Sensible God: The Bearing of Theology on Evolutionary Explanation', in Jitse M. van der Meer (ed.) *Facets of Faith and Science, 3: The Role of Beliefs in the Natural Sciences* (Lanham: University Press of America; Ancaster: Pascal Centre for Advanced Studies on Faith and Science, 1996), 169-197, (citation, 171)

Premise 1. If  $p$  is an instance of organic design, then  $p$  was produced either by a wise creator, or by descent with modification (evolution).

Premise 2. If  $p$  (an instance of organic design) was produced by a wise creator, then  $p$  should be perfect (or should exhibit no imperfections).

Premise 3. Organic design  $p$  is not perfect (or exhibits imperfections).<sup>27</sup>

As Nelson points out, however, these premises are not scientific, they are theological; this is particularly so for the third premise, which refers to perfection and our capacity to identify it.<sup>28</sup> The argument for imperfection generally recognises two forms of imperfection. The first centres on the contingent or constrained nature of descent with modification (i.e. the use of extant organs or adaptations or traits for further development), and is deemed to conflict with God's perfect freedom to create. The second focuses on descent with degeneration, e.g. the existence of vestigial organs such as the appendix, which conflicts with the perfect divine wisdom.<sup>29</sup> We can now move on to discuss the weaknesses in these three premises, and also some counterarguments based on similar propositions to those put forward by our three examples.

(iv) Premise 1, ironically enough, is consistent with a creationist perspective, in that it makes for a sharp distinction between the action of an intelligent designer and the action of natural processes. The optimality or otherwise of biological design could then only be ascertained by filtering out the effects of mutation and/or natural selection.<sup>30</sup> However, if God is understood to work through the secondary causes known as chance and law, as we find in Peacocke and FI, then we might well expect apparent imperfections in the natural order.<sup>31</sup> Premise 2 fails because there is no necessary connection between a perfectly wise creator and a biologically perfect creature. For instance, it is possible to conceive of a benevolent but not omnipotent designer, as we find in Process Thought. This God may have had to rely on evolution

---

<sup>27</sup> Ibid. 172

<sup>28</sup> Ibid. 172

<sup>29</sup> Ibid. 173

<sup>30</sup> Ibid. 176-177

<sup>31</sup> Timothy Shanahan, 'Darwinian Naturalism, Theism, and Biological Design', *PSCF*, 49:3 (1997), 170-171 [Online document] <http://www.asa3.org/ASA/PSCF/1997/PSCF9-97Shanahan.html>. This is still unfortunately denying divine sovereignty for the sake of a faulty premise.

for the further shaping of creatures once they had been created.<sup>32</sup> Therefore, it is possible to affirm that the natural order is created, and also that creatures are “necessarily limited and imperfect” as a result of being created. Imperfection would not then require a specific explanation.<sup>33</sup> Premise 3 is concerned with our ability to determine the nature of a perfect organism, and so most clearly shows the alleged consequences for divine wisdom and freedom. This premise is concerned with what can be created rather than with what can evolve. But if the only limit we pose on such a concept is logical consistency, then it rapidly becomes mere fantasy to posit or anticipate what such creativity might result in.<sup>34</sup> Nelson demonstrates that any such constraints we impose on the divine wisdom are in fact arbitrary rationalist deductions;

If we allow that the creator need only “act reasonably,” that is, create organic designs which meet some specific criteria for optimality, then we must be able to say what those criteria are, and why they obtain, if our claims of suboptimality or imperfection are to have any evidential force.<sup>35</sup>

This same arbitrary rationalism is in evidence when it is assumed that the divine creativity must be accompanied by an absolute freedom of divine action. Here, the presence of conserved patterns or sequences, which might equate with a *plan* for the natural order, is conflated with *limitation* and a “slavish repetition of structures along the lines of some predetermined pattern.”<sup>36</sup> Finally, there is a fundamental difficulty in recognising biological perfection or its absence. Perfection can only realistically be defined as a trait or adaptation whose improvement is virtually inconceivable. However, even here we can only affirm this for one trait or adaptation;

---

<sup>32</sup> Nelson, ‘A Sensible God’, 178. This seems to be Teilhard’s contention, and again has disastrous consequences for divine sovereignty.

<sup>33</sup> Shanahan, ‘Darwinian Naturalism, Theism, and Biological Design’. The danger here is not only that we are still giving credence to the concept of imperfection, but also we are in danger of conflating creation and Fall.

<sup>34</sup> Nelson, ‘A Sensible God’, 181

<sup>35</sup> Ibid. 182

<sup>36</sup> Ibid. 185

Using standard measures of adaptedness, we would have to say that a perfect organism is one that lives forever, converts all of its energy consumption into reproductive activities, produces viable offspring at an infinite rate, moves through the environment with zero friction, is impervious to enemies or predators, can hear all frequencies of sound waves, see all wavelengths of electromagnetic radiation, etc.<sup>37</sup>

This is an absurd, impossible organism, and as we predict the effects of such an organism on biodiversity or the environment, then we cannot affirm that imperfect organisms are incongruent with a perfect intelligent designer.<sup>38</sup>

(v) Perhaps the most telling weakness of the argument from imperfection is that it also involves assumptions about the nature of GPS. We see this in Dawkins' use of the example of the evolution of flatfish to argue against divine action. Cartilaginous fish such as skates and rays have evolved into flatfish through a flattening out of their body surface.<sup>39</sup> Bony flatfish such as plaice and sole have adapted to living on or near the seabed through a different process. For the ancestors of these fish, which would have been vertically flattened like other bony fish, it would have been natural to lie on one side and so adapt to living on the seabed. Unfortunately, this would result in one eye pointing uselessly downwards. Such pressures favoured and maintained an evolutionary shift that brought this useless eye up onto the upper surface of the fish. To bring both eyes onto the upper surface of the skull requires a twisting of the skull which immature bony flatfish must undergo as they develop. Such twisting and distortion, such imperfection, is evidence of its evolutionary heritage;

No sensible designer would have conceived such a monstrosity if given a free hand to create a flatfish on a clean drawing board.<sup>40</sup>

More precisely, it is evidence of the *contingency* of its evolutionary heritage, in that these flatfish have not achieved a new adaptation from a clean slate, but have simply adapted those features that are already present. Assuming that it would be possible

<sup>37</sup> Shanahan, 'Darwinian Naturalism, Theism, and Biological Design'

<sup>38</sup> Ibid.

<sup>39</sup> Dawkins, *The Blind Watchmaker*, 91

<sup>40</sup> Ibid. 92



for ancestral bony fish to flatten out horizontally just as the ancestors of the cartilaginous flatfish did, why then would such a convoluted and perhaps energetically expensive form of evolutionary adaptation be pursued? Dawkins makes the (reasonable) assumption that the evolutionary intermediates from bony fish to bony twisted-skull flatfish must have been more successful in the short term than the intermediates from bony fish to bony horizontally flattened out flatfish.<sup>41</sup> Dawkins argues that therefore there must be a smooth trajectory in GPS between ancestral bony flatfish and these more successful forms of descendants, although as some bony fish have evolved flatness through horizontal flattening, this cannot be the whole case.<sup>42</sup> As Shanahan points out, here Dawkins has moved into pure conjecture.<sup>43</sup> It is after all possible to take Wilcox' line and argue that the probability of bony flatfish arising from an unguided traversal of GPS might have been vanishingly small. However, this would be equally conjectural. Our point is that the imperfection of biological design, or the flawed and contingent nature of evolution, is a surmise based on conjecture (the structure of GPS) and not on science;

Ultimately, therefore, the Darwinian naturalist can only appeal to unknown, but possible, *contingent events* to explain why certain coordinates in design space have been occupied, while others remain vacant.<sup>44</sup>

The point of our discussion of popular science is not to argue that the failure of arguments that deny divine action in evolution should lead us back to a God-of-the-gaps theology, such as we find in Intelligent Design (ID) theory. Rather, we are pointing out that the arguments against divine action in evolution that are based on the 'messy', or contingent aspects of the process are not required of theologians by the natural sciences.<sup>45</sup> This is because we are not dealing with the findings of the natural sciences, but rather with a set of value judgements on evolution, and any such judgements on evolution are not scientific.<sup>46</sup> Any *a priori* discussion of what God

<sup>41</sup> Ibid. 92-93. This does not in and of itself suggest the cause of that success.

<sup>42</sup> Ibid. 93

<sup>43</sup> Shanahan, 'Darwinian Naturalism, Theism, and Biological Design'

<sup>44</sup> Ibid.

<sup>45</sup> As Ernan McMullin puts it we should argue for the consonance of divine action and evolution "*despite its contingency*". (McMullin, 'Cosmic Purpose', 400. My italics)

<sup>46</sup> Rolston, *Science and Religion*, 133. David Fergusson argues correctly that "[t]o argue from the explanatory power of evolutionary biology to the redundancy of metaphysical explanation is to

should or should not do is “a method that can too easily be grounded in subjectivity.”<sup>47</sup>

(vi) What is the significance of the fact that the motifs of the undesirability and superfluity of divine action have disastrous consequences for both theology and the natural sciences? We are going too far if we argue that the illicit import of a common metaphysic into both disciplines is itself evidence of their connectedness. It is the nature of this metaphysic that is important, insofar as it is inimical to the createdness of the natural order. Therefore, to endanger createdness has consequences for both itself and the concept of rational contingency and it is this that suggests the connection between these two concepts. We can go a little further, and point out that although the theological contributions we have examined do not explicitly address the subject, they are also making assumptions about the nature of GPS. The FI school argue that interventionist divine action is unnecessary and so must argue for the richness and complexity of connections in GPS, or that if the array is sparsely populated, then there has been a very high frequency of improbable events in evolutionary history. Peacocke's discussion of evolutionary propensities and potentiality suggests that for him GPS would exhibit richness and complexity, and the focus on novelty in Process thought might well suggest that improbable events are occurring frequently. Theologically, and scientifically we cannot make such assumptions, even though either or both options might be true, and indeed for theology neither option is significant. This is because a theology that is concerned with createdness does not need evidence to diminish either divine action, as we find in this metaphysics, or creaturely action, as we find in creationism and ID.

---

commit a *non sequitur*.” (David A. S. Fergusson, *The Cosmos and the Creator: An Introduction to the Theology of Creation* (London: SPCK, 1998), 59)

<sup>47</sup> Dennis Jansen, ‘Pain, Pleasure and Evolution: An Analysis of Paul Draper's Critique of Theism’, *PSCF*, 51:1 (1999), 40-46 [online document] <http://www.asa3.org/ASA/PSCF/1999/PSCF3-99Jensen.html>

*(B) Evolution as a Creature*

We have attempted to establish the significance of createdness for both theology and the natural sciences, by demonstrating the effects of negating this concept on the createdness of the evolutionary process. Now, we can move on to discuss the features of a theology that does safeguard createdness. We do this by investigating both the negative features of such a theology in this subsection, and its positive features in the third and final subsection. To be more precise, we are investigating how such a theology describes and interprets the evolutionary process, the better to provide contrast and comparison with Teilhard's thought, and the material at the interface. In order to protect the createdness of evolution theologically, we must state an apparent truism and argue that evolution must be described as a creature. However, our point is that evolution must be described as *one creature amongst all others*. It is the conviction of the present author that the pitfalls faced by the theological and scientific contributions we have examined so far are largely the result of assuming that evolution has an intrinsic theological significance, which consequently requires a revision of divine action and other theological doctrines. Evolution has no theological significance above and beyond that of any creature, and so as we move on to discuss the createdness of evolution, we are in fact discussing the createdness of any non-personal aspect of the natural order.

(i) The most obvious negative feature of a theology concerned with createdness, is the disavowal of evolutionary christologies and eschatologies. Gunton disavows evolutionary Christology because it is symptomatic of a competitive God-world relationship in that a natural process can bring about the Incarnation. There are two symptoms; first, there is a degree of Pantheism, in that a natural process can bring about the divine. Second, precisely because the Incarnation results in the Word made flesh, then it is normally considered to require a divine initiative. Therefore, if evolution brings about the Incarnation, then this divine initiative is lost and *transferred to evolution*. The Godman Jesus Christ is then the result of an (un)conscious evolutionary initiative. The same is broadly true of evolutionary

eschatology, in that this assumes that the world can perfect itself, rather than being reliant on divine action. Nonetheless, there is no denying that through the Incarnation, the Second Person of the Trinity has entered the evolutionary process, through his inheriting of genetic material from his mother.<sup>48</sup> The sole (but overwhelmingly important!) significance of this point is that the Son of God entered into precisely our way of living, taking on our (genetic) weaknesses, infirmities and characteristics.

We found a conflation of evolution with eschatology *and* Christology in Teilhard's theology. The very notion of evolutionary 'progress' and the fact that evolution is the manner in which Omega Point is reached, indicates that evolution is in fact a description of the gradual perfection of the natural order, and that the process has then taken on the divine characteristic of bringing about the Eschaton. This impression is only reinforced by the concept of the 'Within' as the driving force of Lamarckian psychic selection. It is therefore impossible to argue that God is even directing the cosmos towards progress *through* evolution, because the 'Within' can ignore or react to the divine 'lure'. Teilhard's evolutionary Christology is of course extraordinarily rich, complex and subtle, but does not allow us to avoid the conclusion that the process of evolution is effectively divinised. Teilhard cannot consistently maintain that the Incarnation is a divine initiative, and even when he does so, it is the Immaculate Conception of Mary that he appears to have in mind as the locus of divine action. The consequences of this are twofold. First, the Incarnation and the continuing presence of Christ are never understood to have a substitutionary significance. Christ has a solely exemplary function that goads human evolution. Second, because Teilhard lacks a Pneumatology and a doctrine of the Ascension, he cannot prevent the post-Resurrection presence of Christ from degrading into a departicularised immanence. The Body of Christ becomes co-extensive with all matter. Most alarming of all, and here Teilhard links eschatology and Christology, evolution has no natural end – its destiny is union with God through

---

<sup>48</sup> We are assuming that Jesus' genome was diploid, i.e. carrying two copies of every chromosome as is normal in humans, but ignore the question as to whether he inherited two copies from Mary or one complete set was created by God at his conception. For more on this see R. J. Berry, 'The Virgin Birth of Christ', *S&CB*, 8:2 (1996), 101-110, (citation, 106-109)

the ongoing evolution of Christ. Hence, evolution involves transubstantiation or an annihilation of matter, and so Teilhard can describe the process as holy.

(ii) Evolution does not require a specific theological interpretation – this very fact means that we can also eschew divine theodicy, the apparent significance of which is one of the main rationales for the undesirability of sovereign or guiding divine action in evolution. It is in fact possible to understand these concerns of theodicy as rather overblown. Denis R. Alexander makes the point clear when he asks why an all-powerful and loving God would choose to create all biological diversity through the ‘messy’ process of evolution “during which process an estimated two billion species have become extinct?”<sup>49</sup> This extinction represents roughly ninety six percent of all species that have ever existed, and seems to be a vast wastage of life. However, as Alexander rightly points out, what are we to measure this concept of waste against? Waste only makes sense in terms of limited resources, but instead we have *the extraordinary God-created abundance* of these two billion species.<sup>50</sup> Evolution is in fact a sign of divine creativity and a not a cause for theological concern. He can therefore ask in bullish tone;

Cats continue to play with mice. Killer whales continue to throw seals around in the air before devouring them. Does it matter?<sup>51</sup>

The answer to this is a resounding ‘no’. As such, we do not need to shy away from claiming the divine sovereignty over the process or those aspects of it where we might be tempted to look askance. Therefore, we must claim, with scriptural warrant, the sovereign divine control over the food chain and predation (Job 38.39-41; 39.26-

---

<sup>49</sup> Denis R. Alexander, ‘Does Evolution have any Religious Significance?’ Christians in Science Public Lecture, given on Monday, 2nd March, 1998, 6:30 p.m. Winstanley Lecture Hall, Trinity College, University of Cambridge, UK [Online Document] [http://www.cis.org.uk/articles/evolution\\_relig\\_signif/alexander\\_01.htm](http://www.cis.org.uk/articles/evolution_relig_signif/alexander_01.htm)

<sup>50</sup> Ibid. C.f. TTC, 189

<sup>51</sup> Denis R. Alexander, *Rebuilding the Matrix: Science and Faith in the 21<sup>st</sup> Century* (Oxford: Lion, 2001), 352. Whilst discussing (the peculiarly British) sentimentality towards animals, he can ask somewhat tongue in cheek;

“How, then, could God make such a cruel world in which cuddly animals engage in titanic struggles to kill each other for food.” (Ibid. 355)

27; Psalm 104.21; 147.9).<sup>52</sup> Even genetic mutation does not require either a specific theodicy or an attenuation of divine action-in-relation. On the contrary, mutation contributes to the variation we find in biodiversity, and is indeed “a reminder of our individual uniqueness in God's sight.”<sup>53</sup> The point is, it is just as possible to acknowledge the contingent or ‘messy’ aspects of evolutionary history, but to still regard the process overall as a positive thing. Jansen rightly points out that God might use a non goal-directed mechanism like natural selection and mutation to further the (good) overall aim of achieving human and non-human creatures. Non-goal directed phenomena such as pleasure and pain can then be seen merely as necessary survival mechanisms. Of course, the response to this is the question as to why there must be *so much* pain. Jansen argues that we cannot be assured that non-human organisms have sufficient sentience to experience pain for anything other than its promotion of survival, which survival is required for our eventual emergence. However, he is concerned to connect this with some sense of ‘compensation’ for non-human suffering, because we can never fully rationalise the existence of suffering in evolution.<sup>54</sup> Robin Attfield makes a positive evaluation of evolution and evolutionary mechanisms based on the argument that the alternatives are a lifeless (and so valueless) world or a world whose present condition would require so many historical special divine interventions so as to make science impossible.<sup>55</sup> Because, in our opinion, we do not require an evolutionary Christology, or eschatology, or theodicy, and because evolution is governed by divine action-in-relation just like any other creature, then we can concur with Alexander when he asks about the religious significance of evolution, and answers “not a lot”. Evolution is the cause for the biological diversity we observe in the world, and it is God’s way of bringing that diversity into being.<sup>56</sup>

---

<sup>52</sup> Denis R. Alexander, ‘Why Some Evangelicals Believe in Evolution’, *Evangelicals Now*, October (1997), 18. C.f. Denis R. Alexander, ‘Is Evolution Atheistic?’, *Evangelicals Now*, January (2003), 16.

<sup>53</sup> Alexander, ‘Is Evolution Atheistic?’, 16

<sup>54</sup> Dennis Jansen, ‘Pain, Pleasure and Evolution’

<sup>55</sup> Robin Attfield, ‘Evolution, Theodicy and Value’, *Heythrop Journal*, 41:3 (2000), 281-296, (citation, 293)

<sup>56</sup> Denis R. Alexander, ‘Does Evolution have any Religious Significance?’



*(C) Divine Action-in-Relation and Evolution*

In this final subsection we move on to discuss the createdness of evolution in detail. This requires us to first develop our theology of divine action-in-relation utilising our grammar of createdness and insights from Teilhard and the interface, and then apply this to evolution through a basic model of divine action in this process. Jesus Christ is not an evolutionary product or emergent, but nor should we assert a deist understanding of the Incarnation. As with all aspects of the world, evolution has been governed and directed by sovereign divine action-in-relation through the Son and Spirit. But how is this specifically related to evolution? In one sense, our answer is simple; evolution does not require a specific understanding of divine action-in-relation, insofar as it is one creature amongst others. Nonetheless, because evolution involves certain creaturely processes, such as genetic mutation and the various phenomena underlying natural selection, and because these are the subjects and results of specific divine acts, then evolution can be said to be governed by specific divine action. In order to be explicitly trinitarian, the latter requires reference to the work of both hands of the Father. In order to secure the concept of createdness, it must also refer to at least some processes involved in evolution. As this model is only a skeleton outline, we are restricting reference to a concept that we have already found to be misused by authors we have discussed. This is the concept of GPS. Such a model relies on the fact of divine action in creaturely processes, but of course cannot describe the *how*. Instead, modelling divine action through GPS allows us to maintain the paradox of divine sovereignty and genuine creaturely integrity.

(i) Although our concern in this subsection lies with divine action-in-relation, to understand this concept we must relate it to the other relevant aspects of our grammar. This is important because this concept is linked to other motifs and doctrines, or is at least informed by them. It is also important to remember that the concept of createdness – the Creator-creature distinction – is recurrent throughout our discussion. The first motif we must contend with is that of the prevenience of God. If we cannot conceive of God as *prior*, then we cannot avoid a competitive

understanding of God and the world. Gunton's Irenaean hermeneutic, in which anything that competes with God is itself divine, makes this clear. Prevenience is itself secured by a number of important motifs. The first is that God is transcendent; he is the holy and wholly other. He relates in and towards the world, and becomes immanent because he is first of all transcendent. This is why Gunton reinterprets transcendence and immanence with otherness and relation. Second, God does not need the world, as the doctrine of the Immanent Trinity makes clear. The natural order is not a necessary product of his being, but is a contingent product of his will. This is the function of the doctrine of creation *ex nihilo*. Third, whilst it is not necessary for God to create, neither is it a foreign imposition upon the divine nature. Gunton argues that the nature of the God-world relationship reflects the divine nature – the trinitarian Persons gift each other with personal space, and the prevenient and transcendent God gifts the world with the ontological space in which it exists authentically as itself, the creature of God.

(ii) So far, the point is to make clear that the God-world relationship is *initiated* and *begun* by God. It is also *continued* and *mediated* by God. There is no deistic isolation between God and the world, and there is no pan(en)theistic confusion of created entities with the two mediating hands of the Father, the Son and Spirit. This is to make the point that this relationship is tensed, in that there is a past tense beginning in the act of creation and a present tense continuation in divine action-in-relation. Hence, Gunton distinguishes creation and Providence. The third and future tense reflects one aspect of the intrinsic nature of the created order – it is a project, destined for perfection. Moreover, it is destined for perfection *in time*. This makes it clear that the Eschaton does indeed represent the completion and perfection of creaturely structures such as time and space, rather than their annihilation, but it also makes clear that time and space are neither to be identified nor contrasted with divine eternity and infinity. Nonetheless, in the same way that the God-world relationship reflects the divine nature, so the natural order exhibits those properties, transcendentals such as relationality, particularity and dynamism, which also reflect the divine nature. Hence all created entities possess a particular and yet relational

being and possess their own ontological content in a network of horizontal relationships and a vertical relationship with God.

(iii) The world is a creature with genuine intrinsic reality, and is being led towards perfection by the two hands of the Father through divine action-in-relation. All divine action leads towards this perfection, hence the Incarnation and the Atonement represent the fulfilment rather than simply the repair of the created order. The life of Jesus Christ from Virgin Birth to Ascension reinaugurates the eschatology of the natural order. Similarly, Gunton argues that pneumatological action *perfects* by particularising the inner-trinitarian relationships, the God-world relationship, and creatures and their relationships. The Spirit therefore enables eschatological forms of existence (such as the Church and inspired culture) to occur anticipatorily in the present. Gunton argues that all christological action is instituting (although not all past tense as Gunton seems unable to avoid) and all pneumatological action is constituting.

(iv) Gunton argues that we cannot and should not claim decisively for divine temporality or atemporality. Nor does he make clear the actual nature of creaturely existence in time, although there are suggestions that he disavows the 'block universe' view of time. However, using the model of the poet or playwright, he does make it clear that for him God does have a perception of the whole of spacetime simultaneously, a point which we have argued is in line with his Irenaean hermeneutic. Furthermore, this perception does not conflict with creaturely freedom, but is instead its guarantee, as is the case even with apparently deterministic divine action such as miracles or election. The point here is that divine action-in-relation always has an eschatological function or goal and so even deterministic divine action is in fact *enabling* the world to become what it was created to be.

(v) The concept of divine action-in-relation needs further unpacking. The most pressing concern is to clarify the relationship between Gunton's concept of the gifted ontological 'space' of the natural order and what Austin Farrer refers to as the 'causal joint', the meeting point of divine and creaturely causality. At first glance, this issue actually seems to be irrelevant to Gunton. One advantage of his occasionally intemperate attitude is that he makes it abundantly clear those doctrines he agrees and disagrees with, and this issue never arises. The closest concern would be his unfortunately brief dismissal of the language of primary and secondary causality, wherein he seems more interested in the co-ordination of divine and creaturely realities than this language implies, as evinced by his preference for the language of the mediation of the divine and creaturely realities. Gunton's disavowal of this form of language makes it clear that he is avoiding concepts such as double agency and *concursum*, and his language of 'space' implies that he is also unconcerned to find physical loci for divine action, as is more common in theologies at the interface with science. Therefore, Gunton seems to be steering a course away from the issue of the causal joint and towards a concept of divine action-in-relation as the *context* for creaturely action.

It is hopefully clear that this does not mean that action-in-relation and the God-world relationship simply provides an environment in which creaturely reality exists and creaturely actions occur. Indeed, Gunton makes it clear that divine action-in-relation consists of a continuous 'series' of discrete acts, including the act of relating itself. The question is of course what these acts are. The most obvious answer is acts of conservation – without divine action-in-relation there would be no created order. Difficulties arise when we consider the doctrine of concurrence or *concursum*. This doctrine argues that all examples of creaturely causality occur only through the divine causality concurring with each and every event. The advantage to this is that it makes clear that God's sovereign governance extends to every detail of reality, but the disadvantage is the implication of a co-ordination of divine and creaturely action. Gunton's emphasis on divine prevenience demonstrates his support for the first of these points, but his emphasis on 'space' seems to cast doubt on the second point.

For instance, on the one hand Gunton explicitly argues for the divine ordering of all events, but on the other hand argues that this occurs without determinism. For him, the Son provides the structuring (or instituting?) of creaturely existence, and the Spirit provides the 'space' (or constituting?) for the creature to exist within that structuring. This appears to be a divine conditioning of the creature, whereby its nature and the forms of action it can undertake are posited by God, and the creature is then divinely enabled to do so in a genuinely creaturely manner. This is in full agreement with *concursum* as to the sovereignty of God, and the necessity of the divine permission for any creaturely event to occur. However, it does not posit a separate act of God in every creaturely action. What we have is a *gifted naturalism* – the world has a genuine existence as the created order, which is reflected in the fact that the sciences work on the presupposition of natural causation for events within the natural order. Nonetheless, this naturalism only exists in the context of a divine ordering and enabling.

(vi) To describe evolution theologically, we must first begin by discussing the nature of the process. The simplest definition of evolution is that of changes in relative gene frequencies. It is not an entity, nor is it a force in history. To think of divine action in evolution, is to think of the divine governance of all of the inter-related processes that bring about the changes that we identify as evolution. For instance, there are a number of mechanisms whereby genetic variation occurs, such as errors in DNA copying systems, mutations brought about by radiation or mutagenic chemicals, random drift etc. These mutations may or may not affect the reproductive success of the organism in whose genome they have occurred. The same is true, as we have just seen, for natural selection. Moreover, mutations and their consequences only take on an evolutionary significance if they are inheritable - and indeed inherited - and so divine action in evolution really involves divine action in all the processes required for a mutation to be inheritable and inherited, everything from the binary fission of amoebae to the courtship of humans.<sup>57</sup> This is not to suggest that evolution is all-

---

<sup>57</sup> Hence the drive to identify divine action in certain aspects of the natural order, such as quantum effects on genetic mutation, is overly-simplistic. For an example see Robert John Russell, 'Special Providence and Genetic Mutation: A New Defense of Theistic Evolution', in *EMB*, 191-223

pervasive, as a great deal of popular science seems to suggest, but rather that the vast majority of the processes involved relate also to other aspects of the natural order, and can be examined from that perspective. Therefore, *God governs evolution by governing the natural order.*

(vii) The process of evolution reflects its gifted naturalism by exhibiting properties in accord with the transcendentals. He argues that the natural order exhibits particularity, relationality, dynamism and substantiality and that all of these reflect the existence of the natural order and the behaviour of entities within it, within the context of divine action-in-relation. In terms of evolution, this means that we too can confidently affirm the creative potential of the interaction of chance and law as long as this is understood to be a result of divine action as opposed to its self-limitation. The process exhibits particularity and substantiality for the simple reason that we are dealing with discrete entities such as individual organisms and ultimately species. Natural selection, the effect of the environment on an organism's reproductive success is the sum total of all its interactions with prey, predators, competitors, mates etc. As such, we find strong traces of relationality within the process. Finally, because the process occurs over time, and there is at least the potential for increased complexity over time, then we have suggestions of dynamism. These features of evolution are of course very similar to those found in Teilhard as well as the science-theology contributors, and reinforces the fact that the problems with these authors does not always lie in their descriptions of evolution but in their conclusions about divine action-in-relation based on these descriptions. Teilhard of course provides the most comprehensive discussion of evolutionary dynamism - to the extent that he conflates it with eschatology - and attempts to correlate this dynamism with a constant interaction with God. The same is true of Peacocke and FI, and perhaps even in Process thought to some extent, but here the grave problem is that at least for the first two this dynamism and also the creativity of evolution results from an unfolding of God-given potential, rather than as a consequence of ongoing divine action-in-relation. This is a pity because Peacocke and FI both capture well the contingency of this evolutionary creativity. Evolution is a dynamic and fruitful



process, whether by an unfolding of potentials or a development of genuine novelty as Process theologians would put it, and these properties are truly God-given. However, to be God-given does not restrict divine action in the present to a mere sustaining or caretaking role, but involves the sovereign lordship and guidance of God over the process.

(viii) If God is sovereign over the process of evolution, then we must consider the ramifications of our Irenaean hermeneutic for the process. First, if God has a perception of the past, present and the future, then he has such a perception over the process of evolution, from beginning to end. There are no surprise mutations or species or extinctions. Moreover, in conjunction with the fact that evolution is not a discrete entity and is not to be confused with eschatology, then the process has no 'end' or 'goal'. It is not simply the case that the goal or telos of evolution is imperceptible to the natural sciences. Hence evolution is to be discussed within the doctrine of Providence, or present tense action-in-relation. This is not contradicted by the fact that the process has a purpose, insofar as it describes the manner in which God brings non-human organisms and the human race into existence.<sup>58</sup> Nor is this contradicted by the fact that evolution has value either as a creature in its own right, or as a representation of a number of created entities and processes. In either instance, it is perceived as good by God, contra evolutionary theodicy. We must also counter evolutionary theodicy by reinforcing the point that all of the events that come under the rubric of evolution - every mutation, every prey-predator interaction, every extinction - is governed by God, as Alexander makes clear. This avoids the reductionist (not to mention misleadingly simplistic) assumption that evolution represents blind chance filtered through law-like natural selection. Natural selection is no more a singular entity than is evolution, and God is sovereign over the whole set of organism-environment interactions that make up natural selection. Finally, if God governs evolution, then miracles are not to be discounted. As the advocates of FI rightly point out, we must not attempt to identify loci for miraculous divine action-in-relation within evolutionary history, as this reflects negatively on the

---

<sup>58</sup> We are not claiming that evolution has now fulfilled its purpose through the arrival of the human species. The process is ongoing at the biological and perhaps also the cultural level.

creaturely capacities of the natural order. On the other hand, to deny the occurrence of miracles is to make unwarranted metaphysical claims about the evolutionary capacities of the natural order. The real question concerning miracles or intervention and evolution is that of the *purpose* of such actions.<sup>59</sup> Miracles have an eschatological purpose, either bringing about future conditions in the present or enabling creatures and created entities to be what they are intended to be. Therefore, divine intervention in evolution is not an evidential matter of searching for creaturely structures that apparently could not have evolved unaided. It is rather a commitment to the more minimalist belief that any and all creaturely structures *could* and probably *did* evolve within the government of general Providence, but have *perhaps* been the subject of special Providence. As this argument does not conflict with methodological naturalism, or with the theological insistence on the prevenience of God and the relative autonomy of the natural order, then this satisfies both the rational contingency and createdness of the world.

(ix) As we turn at last to our model for divine action-in-relation with respect to evolution, we must bear in mind the simple point that this divine action encompasses the entirety of the natural order, in general and special Providence. As such, it would be impossible to represent the divine government of all such processes! Moreover, we are searching for a model that enables us to consider one other point – the fully trinitarian nature of divine action-in-relation. The two hands of the Father govern and direct evolution in transcendence and immanence. We therefore require a model that allows us to consider all of these points, and to do so we use the concept of GPS. We have already addressed GPS, in order to demonstrate that both theology and popular science can resort to metaphysical speculations about its constitution, if divine action-in-relation and creaturely reality are not adequately articulated and safeguarded. Consequently, we are not concerned to elucidate or speculate on the

---

<sup>59</sup> Miracles do not have a purely functional role. Indeed, Leonid Borodin has argued that “[a] miracle is really a moral concept.” (Leonid Borodin, *The Year of Miracle and Grief* (tr. J. Bradshaw) (Quartet Books, 1988), 3-4, quoted in Michael Fuller, ‘Truths from Strange Times’, *Theology*, 107/837 (2004), 195-203, (citation, 203) Therefore, it is difficult to conceive of miracles in evolution.

structure of GPS, but rather we aim to describe the various physical processes it represents in terms of divine action-in-relation.

(x) GPS is a representation of micro- and macroevolution in terms of a grid-like array of genomes arranged in terms of similarity of genetic coding. Therefore those genomes that are most similar to each other, i.e. differing at one base, will be closest in the grid. There are also competing views of GPS on the issue of whether it represents all theoretically possible genomes, or simply those that are at present actualised. Given that evolution can be described as changes in relative gene frequencies, then on the former view, GPS varies insofar as the *ratio* of actualised to potential genomes alters through evolutionary history. If the latter is the case, then the *size* of GPS increases and decreases over time.<sup>60</sup> For our purposes we are using the former definition because our interest does not lie in the arrangement of genomes but in the relationship between those that are actualised and those that are potential. Put simply we wish to discuss divine action in terms of the conversion of potential to actualised and indeed actualised to potential genomes. We can do this because GPS is a relatively simple model (except that the arrangement of genomes requires more than three dimensions!) and yet it represents a whole range of processes. If we consider one evolutionary path, say from primitive hominids to *Homo sapiens sapiens*, then this path describes a thread or movement in GPS as new genomes are actualised through genetic mutations (and the combining of different genomes in sexual reproduction) and already extant genomes become merely potential as deaths and extinctions occur. Moreover, the actualisation of any particular genome also represents the life history of the organism or organisms that carry that genome, from embryogenesis to reproduction. This is because, as we have already intimated, if mutations are to have evolutionary significance, then they must occur during embryogenesis and be both inheritable and inherited. Following Gunton and Alexander, we understand *all* of these various events and processes to be governed by the sovereign will and action-in-relation of God. This leads to the next issue; if

---

<sup>60</sup> For instance, the size of GPS would have decreased dramatically as an immediate and long-term consequence of the meteor strike which led to the extinction of the dinosaurs and approximately 96% of all other species.

divine action-in-relation must be articulated in trinitarian terms, then how do we discuss the events represented by GPS as the work of the two hands of God?

(xi) It is probably fair to say that Gunton is in full agreement with the theological concept of *opera trinitatis ad extra sunt indivisa* – the external operations of the Trinity are undivided, indeed united. Nonetheless, he is concerned not to let the attribution of certain actions or forms of action to the divine Persons to become an arbitrary modalism. Thus, he carefully argues for distinct and yet undivided roles for the two hands of the Father (instituting and constituting), and contextualises this discussion in terms of differences in transcendence and immanence for the Word and Spirit. The work of the Word is more associated with identity and immanence, although not Pantheism. The Word works from within the world as its rational principle. The work of the Spirit is more associated with otherness and transcendence. The Spirit works over and against the natural order, particularising and perfecting it. Taken together, these different motifs allow us to attribute different processes and events, as they are represented by GPS, to the Son and the Spirit respectively without denying the fundamental unity of God's actions.

(xii) Evolutionary change is represented in GPS in two ways. First, we have the *movement* from one genome to another, as the latter becomes actualised. The former may remain or may become potential. Second, we have the *instantiation* of genomes as they become actualised. Although, as have already noted, these two features represent in many respects a common pool of processes and events, nonetheless we wish to model the movement as the constituting work of the Spirit, and the instantiation as the work of the Word or *Logos* of God. To model the work of the two hands of God in this fashion is not to argue that the Spirit is specifically or solely responsible for the genetic variation that underlies the movement from one genome to another, nor is it to argue that the *Logos* is equally narrowly responsible for the processes of development whereby such mutations can be incorporated within the development of living organisms. However, these processes can loosely be described

in terms of structure and institution, or dynamism and constitution. For instance, the Word, as rational principle, has an instituting role related to the coherence and specificity of individual organisms. This includes the stability and physical coherence of a genome and organism, plus the informational content of the genome and the coherence of those processes required for a genome to become a blueprint (genotype) for a living organism, and its expression as the physical makeup (phenotype) of a living organism. This of course occurs in the form of present tense divine action-in-relation. The Spirit can be related to those dynamic and constitutive processes which bring about life and new life, such as conception, embryogenesis, metabolism, mental and physical maturation, reproduction and of course various physical processes both within an organism and external to it, which are responsible for bringing about genetic variation. These lists are of course not exhaustive, and do not even cover the role of Word and Spirit in natural selection. Most importantly, given our concern to argue that evolution does not require a specific theological treatment, it should be noted that *not all movements and instantiations within GPS have an evolutionary significance*. A good example of this is the existence of isozymes. This refers to the fact that an enzyme can exist in different forms with slightly different chemical and structural composition, whilst remaining functionally equivalent. These differences do not affect the efficiency of the enzyme and so are not factors in natural selection and evolution. The same is true of vestigial organs such as the appendix, or junk DNA. In summary, we can model divine action-in-relation with respect to evolution, but really we are modelling a subset of the countless ways in which God governs his creation in sovereign freedom.

### ***Conclusion***

This final chapter of our thesis was intended to demonstrate the fact that evolution does not require a specific theological treatment. In the previous chapter this was done by showing how the concerns of evolutionary theodicy and the apparent superfluity of divine action ran the risk of losing sight of the createdness of the process. Here, we began by arguing that a specific theological treatment of evolution

is also not warranted by the natural sciences. Indeed, to argue that evolution tells us anything about divine action at all is a metaphysical stance that does not do justice to science or theology. What appears to be happening in both theology at the interface and this form of popular science is an unwarranted favouring of the findings of the natural sciences over theological doctrine as we suggested in the introduction to our thesis. To deny the sovereignty of divine action-in-relation over evolution (or any other created entity or process) is to endanger its createdness and so the rational contingency of evolution. We were also concerned in this chapter to provide some context for discussing the conceptual linkage between the sovereign work of God and the genuine reality of the natural order. However, in keeping with the tenor of our first aim, it is equally important here to keep in mind that evolution is not theologically significant. The processes underlying evolution are also those involved in other creaturely events such as basic metabolism, and because we are not concerned with identifying the causal joint for divine action in the natural order, then we cannot argue that the divine action involved in evolution is itself somehow unique. Let us finish by reiterating our main point with respect to evolution: it should be understood theologically simply as a creature or as the result of various created entities and processes. It has no other significance.



**Summary: Evolution, the Science-Theology Interface and the Grammar of Createdness**

In this section we were concerned to put our grammar of createdness into action. To do this we maintained our focus on evolution from the previous section, and addressed the arguments of three different and significant perspectives on evolution at the science-theology interface. To be more precise, we first of all argued that the lessons we learned from Teilhard taught us to focus on divine action-in-relation, and so we looked at three approaches to divine action and evolution. Despite the fascinating variety which these three – Arthur Peacocke, Process thought and FI – demonstrated, we did note some underlying similarities, namely a potential risk for the createdness of the evolutionary process because the sovereign divine governance of the process in all aspects could not be thoroughly articulated. The problem is merely incipient for Peacocke and FI, but in Process thought we find a competitive God-world relationship and so a full-blown reflexive Pantheism. The dangers for all three positions manifested itself in a general position on divine action that rendered it in many causes superfluous or even ethically suspect. We then moved on to discuss whether there was any outstanding scientific warrant for these theologically hazardous conclusions. The answer was clearly negative, and in fact demonstrated that these conclusions were based on metaphysics and not on the createdness and rational contingency of evolution. Indeed, in considering the createdness of evolution it also became clear that evolution did not warrant a specific theological treatment and thus the need for such a metaphysics and these specific conclusions on divine action was obviated. The final task of this section was to outline a model for trinitarian action-in-relation with respect to evolution. Given that the process itself does not warrant unique forms or degrees of divine action, then our model of GPS has the sole function of conceptualising the sovereign nature of divine action in all aspects of the natural order as they pertain to the process.

## **Conclusion: Createdness as an Essential Aspect of Theology at the Science-Theology Interface**

### ***(A) Retrospective: The Findings of this Thesis***

In this thesis we have attempted to provide an argument for the importance of createdness as a theological concept by considering the theological consequences of distorting or losing this concept in discussions of evolution at the science-theology interface. We began with the central affirmation that the natural order and all entities within it exhibit rational contingency and are created. Both are properties of the creature viewed from the two perspectives of science and theology. Indeed, these are the two parameters of science and theology respectively, and genuine science and theology does not threaten its own parameters or those of the other discipline. Our concern was that this interdisciplinary distinction should not be lost sight of at the science-theology interface, irrespective of whether theology and science interact in terms of *dialogue* or *integration*. Our argument was threefold. We generated a grammar of createdness, based on the work of Colin E. Gunton, which we then tested against the theology of Teilhard de Chardin, and then applied to the problem of divine action in evolution, as it is dealt with by a number of significant contributors at the science-theology interface and within popular science. Before we move on to discuss our overall findings in more detail we should make it clear that our discussion is likely to cause some controversy for three distinct reasons. First, it is somewhat divergent from what appears to be a major orientation in contemporary science-theology dialogue, second, it is heavily critical of Teilhard who appears to invite hagiography as a matter of course and finally it is reliant on the work of Gunton whose trenchant theological style has ruffled many a theological feather.

(i) It would be unjust to generalize with regard to the authors whose arguments we have discussed, let alone with regard to the science-theology interface as a whole, but we would nonetheless argue that we have found consistent emphases within the

material we engaged with that are inimical to the concept of createdness. At the heart of the difficulties is the assumption that without divine self-limitation, the reality of the natural order – especially the integrity of its causality – is threatened. Unfortunately, the opposite effect is achieved, as this is in fact the logic of a competitive God-world relationship, insofar as it assumes that divine and creaturely reality are somehow mutually exclusive. In examining this question with respect to evolution in particular, we found an equivalent argument in popular science that was demonstrably metaphysical in nature, and we feel justified in arguing that the same is true of the theological positions we examined. As such, we would argue that theology at the interface is not interacting with the findings of the natural sciences, but is in fact interacting with a form of rationalistic ontological naturalism. We would suggest that the basic issue here is, as Nicholas Lash suggests, that the interaction between theology and science appears to work most smoothly when theology takes on the form of empiricism.<sup>1</sup> To be sure, this is not always done consciously, but whereas “for some the ideal of consonance seems to mean harmony and full accord, for others it is theology constrained by scientific research.”<sup>2</sup> In short, the theological contribution to the interface is not free to present its case unfettered, whereas no such prior conditioning is evident for contributors from natural sciences.<sup>3</sup> This benefits neither science nor theology, because without a treatment of evolution based scientifically on rational contingency and theologically on createdness, we are not truly discussing evolution. The semi-divinised process that is interpreted in terms of the selfish gene or as a result of agential chance and law is illusory. Evolution is only real as a creature.

---

<sup>1</sup> Nicholas Lash, *The Beginning and the End of Religion* (Cambridge: Cambridge University Press, 1996), 92

<sup>2</sup> Ibid. 14

<sup>3</sup> We also note such a tendency in the thought of Willem Drees, who argues that theology must, amongst other things, “develop a view of creation and providence which does not conflict with the evolution of species and our knowledge of physical processes.” (Drees, *Religion, Science and Naturalism*, 4) This would appear reasonable, except that this limitation is one-way traffic. For instance, William Alston argues that because the methodology of natural sciences relies on induction, then there is a potential for the occurrence of miracles within the natural order in any unexplored or unsupervised aspect of reality. Drees appears to take great offence at this suggestion, describing it as “undermining scientific reasoning” although he admits it does not conflict with any observations. In fact, it “undermines the integrity of science, both that of its methods and that of its results.” Therefore, the only unproblematic theological approaches are those that “seek to respect and interpret the understanding of reality delivered by the natural sciences.” (Ibid. 94-95)

(ii) This leads onto our treatment of Teilhard, whose astonishing vision of a world in evolutionary christic development lead him to overlook ultimately the createdness and rational contingency of evolution. For Teilhard the significance of the end far outweighs that of the beginning, and the significance of unity far outweighs that of the disunited or disunity itself. Ultimately, evolution loses its createdness in Teilhard's vision as radial energy resolves itself into a christogenic force. Evolution is the redemption of the multiple which has for all time confronted God with disunity and evil. This virtually otiose God can only act to encourage this escape, by making himself known in history as Jesus Christ, the redeemer from multiplicity, and then by becoming an explicit element of evolution. Evolution is a Christ-inspired salvation by works.

(iii) In this thesis we have hopefully illustrated the constructive potential of Gunton's theology to some extent. At least for our purposes, the basis of its value is in his recurring emphasis on createdness, and how theological motifs can influence this. We do not need to repeat our exposition and critique of Gunton's theology, but we must highlight its basic framework for its value for the science-theology dialogue. The heart of this theology is the divine prevenience, understood not as a rationalist principle but as the trinitarian freedom of God. God as Immanent Trinity is free, triune, transcendent, self-sufficient, the Lord. The creature exists within a *given* space where it nevertheless has a true and intrinsic reality through an ongoing relationship with the Creator. In this uniquely dualist relationship, the creature is particularised by the Spirit of God as the bounded and finite creature, and finds its own space where it is not pantheistically consumed by God nor reaches beyond its own limits and arrogates to itself divine boundaries or properties. The absolute limitation or boundary of the creature is of course its dependency upon God for existence and continued existence. The creature is not self-caused, nor does it derive its own destiny. It is the result of a divine act of will through the Son and Spirit, and its continued existence in relative autonomy is the result of continuing divine action-in-relation.

***(B) Prospective: Suggestions for Further Research***

As with any thesis, we must make an attempt at foresight and point to the potential for further study in the subjects we have been addressing. These fall into four broad categories. First, Foster's argument needs to be supported with concrete historical examples of the importance for creation theology and voluntarist theology for early scientists. Moreover, if we are to be able to claim that explicit or implicit theological presuppositions underlie the scientific undertaking, then Foster's treatment of Greek science also needs a concrete basis. Apart from this, there are three other areas that would benefit from further development. (i) Further treatment and critique of Gunton's theology. (ii) A similar treatment of Teilhard, with particular emphasis on createdness. (iii) Reappraisal of methodology at the science-theology interface.

(i) Gunton's theology is in urgent need of detailed scholarly appraisal. Although we have attempted a broad exposition of the major tenets of his work, anyone familiar with his work will be aware that we have bypassed his discussion of metaphor, and hardly touched upon the idea of transcendentals. Moreover, our critique of his work only addresses those aspects of his work that we presented. As his work undergoes more detailed and critical analysis, not only our shortcomings but also his own will become more apparent, but we can highlight those difficulties which we encountered. The most basic and most critical weakness of Gunton's theology is his dismissive approach to evidence. Irrespective of how accurate his reading of friend or foe happens to be, his arguments are always vulnerable to the charge that he is demonising his opposition and practicing hagiography on those who he follows. This is a great shame, not only because we have hopefully shown that he has a great many fruitful ideas, but also because as Ayres points out, there is a danger that in regarding his opponents as beyond the pale, he is missing out on that which is fruitful in their thought. In particular, his reading of the Cappadocians needs reviewing, and there must be an endeavour to rehabilitate Augustine into his wider theology.

In terms of his theology, there is a great danger that Gunton's necessary strengthening of Pneumatology becomes a threat to an adequate Christology. Put simply, he has reduced Christology to past tense, instituting divine action, and reserves seemingly all present tense action to the Spirit. This ignores the role of the divine *Logos* in maintaining and guaranteeing creaturely rationality. Moreover, whilst some of Molnar's complaints against Gunton's doctrine of the Incarnation do not hold up under scrutiny, there is room for a re-articulation of the fact that the ministry of Christ is a human endeavour carried out by the Word of God incarnate. Gunton seems occasionally to forget his own emphasis on anhypostasis/enhypostasis, and implies that there is an independent human personhood within the Incarnation. Another dangerous aspect of Gunton's Pneumatology is the motif of the pneumatological perfecting of God. It is important to prevent the Spirit's role as the love between Father and Son from becoming mere introspection, and it is also important to emphasise the naturalness of the act of creation to prevent any suggestion of external constraints. However, if the love of God is orientated naturally to the other, then this might be perceived to conflict with the gratuity of the act of creation. Gunton also emphasises the role of the Spirit in eschatological (proleptic) divine action, but we never receive any indication as to what form divine action that brings about the Eschaton actually takes, or how the world is being changed through this action. This is part and parcel of a wider difficulty in Gunton's doctrine of Providence. To be fair, this doctrine only received extensive treatment by Gunton in the last five or six years, but we still had to reconstruct a great deal of his doctrine from partial evidence. Some further clarification on the relationship between divine and creaturely action in this regard would be welcome.

(ii) As the continuing research into Teilhard's theology seems unabated, we can hope that the scientific credentials of his work will become clearer over time, both positively and negatively. Moreover, there is room for his advocates to respond to our challenge and adapt his work towards an emphasis on createdness. This will require a thorough overhaul of his metaphysics, especially his suspicions of the multiple and his devaluing of creation *ex nihilo*. With regard to his evolutionary



Christology, there needs to be a re-emphasising of the particularity of Christ, through an affirmation of the doctrine of the Ascension, and through a pneumatological counterbalance to his almost total focus on Christology. In this way, an emphasis on present tense divine action would mitigate against the need for the concept of the Within and the subsequent divinising of evolutionary change. Responsibility for evolutionary movement must be firmly attributed to the Son and Spirit and involve more than a mere goad for human action. Lastly, there needs to be a greater distinction between evolution and eschatology, such that the divine intention and action behind the latter can come to the fore.

(iii) The science-theology interface represents a vast edifice of scholarship, and to make general statements about further research here would be foolhardy. However, we can say that an emphasis on the createdness will be of significance whenever theology must comment on the natural order. It is not just important for theologians to ensure that their work is faithful to the reality of the world, but it is also important for critiquing the material within popular science and the scientific contributions to the dialogue. The concept of createdness and rational contingency allows for a critical analysis of theology and science, which ensures that we are truly dealing with the dialogue model. Of course not all theologians wish to remain with a dialogue model, and many wish to move towards an integration model. We see this in Peacocke's theology of nature, and in Gunton's transcendentals. There is no reason why this cannot also remain faithful to createdness, provided the divine sovereignty in both divine action and relationality with the world. This is hardly a novel suggestion, but it does seem to be an unpopular or unimportant motif at the interface, where the emphasis appears to be on attenuating divine action-in-relation for the sake of avoiding any suggestion of divine intervention. More to the point, the particular concern with evolution that prompts a good deal of this reinterpretation of divine sovereignty and action-in-relation is perhaps unjustified in the first place. Any aspect of the natural order, including evolution, is only a fitting subject for theology and the natural sciences in terms of its createdness and rational contingency.

## Bibliography

### Works by Colin E. Gunton

References prefixed by \* indicate substantial textual agreement with articles/essays in Colin E. Gunton, *Father, Son and Holy Spirit: Towards a Fully Trinitarian Theology* (London/New York: T. & T. Clark, 2003), although these are not cited as reprints.

References suffixed by [FSH, page numbers] indicate that an article/essay has been reprinted in the aforementioned work, but is referenced by the cited work.

In both instances, there is some apparent reworking of the material.

### Books

*Being and Becoming: The Doctrine of God in Charles Hartshorne and Karl Barth* (1<sup>st</sup> edition) (Oxford: Oxford University Press, 1980)

*Yesterday and Today: A Study in Continuities in Christology* (Grand Rapids, MI: Eerdmans, 1983)

*Enlightenment and Alienation: An Essay Towards a Trinitarian Theology* (Grand Rapids, MI: Eerdmans; Basingstoke: Marshall, Morgan & Scott, 1985)

*The Actuality of Atonement: A Study of Metaphor, Rationality and the Christian Tradition* (Edinburgh: T. & T. Clark, 1988)

*The Transcendent Lord: the Spirit and the Church in Calvinist and Cappadocian* (London: Congregational Hall Memorial Trust, 1988)

*The Promise of Trinitarian Theology* (Edinburgh: T. & T. Clark, 1991)

*Christ and Creation: The 1992 Didsbury Lectures* (Carlisle: Paternoster Press; Grand Rapids, MI: Eerdmans, 1992)

*The One, the Three and the Many: God, Creation and the Culture of Modernity* (Cambridge: Cambridge University Press, 1993)

*A Brief Theology of Revelation: The 1993 Warfield Lectures* (Edinburgh: T. & T. Clark, 1995)

*Theology through the Theologians: Selected Essays 1972-1995* (Edinburgh: T. & T. Clark, 1996)

(ed.) *The Cambridge Companion to Christian Doctrine* (Cambridge: Cambridge University Press, 1997)

(ed.) *The Doctrine of Creation: Essays in Dogmatics, History and Philosophy* (Edinburgh: T. & T. Clark, 1997)

*The Triune Creator: A Historical and Systematic Study* (Edinburgh: Edinburgh University Press, 1998)

*Incarnation and Imagery: Words, the World and the Triune God* (Oxford: Farmington Institute for Christian Research, 1999)

*Intellect and Action: Elucidations on Christian Theology and the Life of Faith* (Edinburgh: T. & T. Clark, 2000)

(ed.) *Trinity, Time, and Church: A Response to the Theology of Robert W. Jenson*, (Grand Rapids, MI: Eerdmans, 2000)

*Being and Becoming: The Doctrine of God in Charles Hartshorne and Karl Barth* (rev. edition) (London: SCM Press, 2001)

*Act and Being: Towards a Theology of the Divine Attributes* (London: SCM Press, 2002)

*The Christian Faith: An Introduction to Christian Doctrine* (Oxford/Malden, Mass.: Blackwell Publishers, 2002)

*Father, Son and Holy Spirit: Towards a Fully Trinitarian Theology* (London/New York: T. & T. Clark, 2003)

(ed.) *The Theology of Reconciliation* (London: T. & T. Clark, 2003)

### Essays/Lectures

‘Christ the Sacrifice: Aspects of the Language and Imagery of the Bible’, in L. D. Hurst and N. T. Wright (eds.) *The Glory of Christ in the New Testament: Studies in Christology in Memory of George Bradford Caird* (Oxford: Clarendon Press, 1987), 229-238

‘The Spirit as Lord: Christianity, Modernity and Freedom’, in Andrew Walker (ed.) *Different Gospels* (London: Hodder and Stoughton, 1988), 169-182

‘The Sacrifice and the Sacrifices: From Metaphor to Transcendental?’, in Ronald J. Feenstra and Cornelius Plantinga Jr., (eds.) *Trinity, Incarnation, and Atonement* (Notre Dame: University of Notre Dame Press, 1989), 210-229 [FSH, 181-200]

'The Triune God and the Freedom of the Creature', in S. W. Sykes (ed.) *Karl Barth: Centenary Essays* (Cambridge: Cambridge University Press, 1989), 46-68

'The Spirit in the Trinity', in Alasdair I. C. Heron (ed.) *The Forgotten Trinity, 3: A Selection of Papers Presented to the BCC Study Commission on Trinitarian Doctrine Today* (London: BCC/CCBI, 1991), 123-135

'The Trinity in Modern Theology', in Peter Byrne and J. L. Houlden (eds.) *Companion Encyclopaedia of Theology* (London: Routledge, 1995), 937-957

'Persons', in Paul Barry Clarke and Andrew Linzey (eds.) *Dictionary of Ethics, Theology and Society* (London: Routledge, 1996), 638-641

'Pneumatology', in Paul Barry Clarke and Andrew Linzey (eds.) *Dictionary of Ethics, Theology and Society* (London: Routledge, 1996), 644-677

'The Trinity, Natural Theology, and a Theology of Nature', in Kevin J. Vanhoozer (ed.) *The Trinity in a Pluralistic Age: Theological Essays on Culture and Religion* (Grand Rapids, MI/Cambridge: Eerdmans, 1997), 88-103

'The Doctrine of Creation', in Colin E. Gunton (ed.) *The Cambridge Companion to Christian Doctrine* (Cambridge: Cambridge University Press, 1997), 141-157

'The End of Causality? The Reformers and their Predecessors', in Colin E. Gunton (ed.) *The Doctrine of Creation: Essays in Dogmatics, History and Philosophy* (Edinburgh: T. & T. Clark, 1997), 63-82

\*'Christ, the Wisdom of God: A Study in Divine and Human Action', in Stephen C. Barton (ed.) *Where Shall Wisdom Be Found? Wisdom in the Bible, the Church and the Contemporary World* (Edinburgh: T. & T. Clark, 1999), 249-261

'Dogmatic Theses on Eschatology', in David Fergusson & Marcel Sarot (eds.) *The Future as God's Gift: Explorations in Christian Theology* (Edinburgh: T. & T. Clark, 2000), 139-143

'Salvation', in John Webster (ed.) *The Cambridge Companion to Karl Barth* (Cambridge: Cambridge University Press, 2000), 143-158

'Creation and Mediation in the Theology of Robert W. Jenson: An Encounter and a Convergence', in Colin E. Gunton, (ed.) *Trinity, Time, and Church: A Response to the Theology of Robert W. Jenson*, (Grand Rapids, MI: Eerdmans, 2000), 80-93 [FSH, 93-106]

'The Holy Spirit who with The Father and the Son Together is Worshipped and Glorified', Lecture presented to the Heidelberger Ökumenisches Forum 'The Trinity, the Church and The Christian Ethos', 12.5.2000-13.5.2000 [Online document] <http://www.theologie.uni-hd.de/oek/institut/forum/vortrag1.htm> [FSH, 75-90]

'Being and Person: T. F. Torrance's Doctrine of God', in Elmer M. Colyer (ed.) *The Promise of Trinitarian Theology: Theologians in Dialogue with T. F. Torrance* (Lanham, Md: Rowman & Littlefield, 2001), 115-137 [FSH, 32-57]

'Theology in Communion', in Darren C. Marks (ed.) *Shaping a Theological Mind: Theological Context and Methodology* (Aldershot: Ashgate, 2002), 31-37

'Trinity and Trustworthiness', in Paul Helm and Carl R. Trueman (eds.) *The Trustworthiness of God: Perspectives on the Nature of Scripture* (Grand Rapids, MI/Cambridge, Eerdmans, 2002), 275-284

'Towards a Theology of Reconciliation', in Colin E. Gunton (ed.) *The Theology of Reconciliation* (London: T. & T. Clark, 2003), 167-174

### Articles

'Process Theology's Concept of God. An Outline and Assessment', *Expository Times*, 84 (1973), 292-6

'The Knowledge of God According to Two Process Theologians: A Twentieth-Century Gnosticism', *Religious Studies*, 11 (1975), 87-96

'Transcendence, Metaphor, and the Knowability of God', *Journal of Theological Studies*, 31:2 (1980), 501-516

'Time, Eternity and the Doctrine of the Incarnation', *dialog*, 21:4 (1982), 263-268

'Barth, the Trinity, and Human Freedom', *Theology Today*, 43:3 (1986), 316-330

'Two Dogmas Revisited: Edward Irving's Christology', *Scottish Journal of Theology*, 41:3 (1988), 359-376

'Universal and Particular in Atonement Theology', *Religious Studies*, 28 (1992), 453-466

Review of Ted Peters, *GOD as Trinity: Relationality and Temporality in Divine Life*, in *Theology Today*, 51:1 (1994), 174-176

'Atonement and the Project of Creation: An Interpretation of Colossians 1:15-23', *dialog*, 35:1 (1996), 35-41

'Until He Comes': Towards an Eschatology of Church Membership', *International Journal of Systematic Theology*, 3:2 (2001), 187-200 [FSH, 216-234]

'Editorial', *International Journal of Systematic Theology*, 5:1 (2003), 1-2



**Works by Pierre-Marie-Joseph Teilhard de Chardin**

*Le Milieu Divin: An Essay on the Interior Life* (no tr.) (London: Collins, 1960)

*The Future of Man* (tr. Norman Denny) (London: Collins, 1964)

*Hymn of the Universe* (tr. Simon Bartholomew) (London: Collins, 1965)

*The Appearance of Man* (tr. J. M. Cohen) (London: Collins, 1965)

*The Making of a Mind: Letters from a Soldier-Priest 1914-1919* (tr. René Hague) (London: Collins, 1965)

*The Vision of the Past* (tr. J. M. Cohen) (London: Collins, 1966)

*Letters from a Traveller 1923 – 1955* (no tr.) (London: Collins, 1967)

*Science and Christ* (tr. René Hague) (London: Collins, 1968)

*Writings in Time of War* (tr. René Hague) (London: Collins, 1968)

*Human Energy* (tr. J. M. Cohen) (London: Collins, 1969)

*Activation of Energy* (tr. René Hague) (London: Collins, 1970)

*Christianity and Evolution* (tr. René Hague) (London: Collins, 1971)

*Letters to Two Friends 1926 – 1952* (tr. Helen Weaver) (London: Collins, 1972)

*Journal, I: Cahiers, 1-5, 26 Août 1915 – 4 Janvier 1919* ed. Karl and Nicole Schmitz-Moormann (Paris: Fayard, 1975)

*Toward the Future* (tr. René Hague) (London: Collins, 1975)

*The Phenomenon of Man* (no tr.) (London: Collins, 1977)

*The Heart of Matter* (tr. René Hague) (London: Collins, 1978)

*Lettres à L'Abbe Gaudefroy et à L'Abbé Breuil* (Paris: Le Rocher, 1988)

## Abbott, L.

Alexander, D. R.

'Is Evolution Atheistic?', *Evangelicals Now*, January (2003), 16

'Divine Action, Human Freedom, and the Laws of Nature', in Robert John Russell, Nancey Murphy, and C. J. Isham (eds.) *Quantum Cosmology and the Laws of Nature: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1996), 185–206

'Creation/Evolution' Page [Online Document]  
<http://www.asa3.org/ASA/topics/Evolution/index.html>

Avisé, J. C.

*The Genetic Gods: Evolution and Belief in Human Affairs* (Cambridge, MA; London: Harvard University Press, 1998)

Ayres, L.

Review of Colin E. Gunton, *The Promise of Trinitarian Theology*, in *Journal of Theological Studies*, ns 43:2 (1992), 780–782

‘Augustine, the Trinity and Modernity’, review of Colin E. Gunton, *The One, the Three and the Many*, in *Augustinian Studies*, 26:2 (1995), 127–133

Baillie, J.

*Natural Science and the Spiritual Life* (London: Oxford University Press, 1951)

Barbour, I. G.

*Religion and Science: Historical and Contemporary Issues* (rev. and exp.) (London: SCM Press, 1998)

‘Five Models of God and Evolution’, in Robert J. Russell, William R. Stoeger, S.J. and Francisco J. Ayala (eds.) *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1998), 419–442

*When Science Meets Religion* (London, SPCK, 2000)

Barrett, P.

‘Beauty in Physics and Theology’, *Journal of Theology for Southern Africa*, 94 (1996), 65–78

Barry, A.

*Some Lights of Science on the Faith* (London: Longmans, Green and Co., 1892)

Barth, K.

*Church Dogmatics*, III: *The Doctrine of Creation*, 1 (ed. T. F. Torrance, ed. and tr. G. W. Bromiley) (Edinburgh: T. & T. Clark, 1958)

Barton, S. C.

(ed.) *Where Shall Wisdom Be Found? Wisdom in the Bible, the Church and the Contemporary World* (Edinburgh: T. & T. Clark, 1999)

Bavinck, H.

*In the Beginning: Foundations of Creation Theology* (ed. John Bolt, tr. John Vriend) (Grand Rapids, MI: Baker Books, 1999)

Beecher, H. W.

*Evolution and Religion Part I: Eight Sermons, Discussing the Bearing of Evolutionary Philosophy on the Fundamental Doctrines of Evangelical Christianity* (London: James Clarke; New York: Fords, Howard and Hulbert, 1885)

Benz, E.

*Man's Concept of the Future from the Early Fathers to Teilhard de Chardin* (London: Victor Gollancz, 1967)

Bergeron I. and Ernst, A.-M.

*Le Christ Universel et l'Evolution selon Teilhard de Chardin* (Paris: CERF, 1986)

Berkouwer, G. C.

*The Providence of God* (tr. Lewis B. Smedes) (Grand Rapids, MI: Eerdmans, 1952)

Berry, R. J.

'The Virgin Birth of Christ', *Science & Christian Belief*, 8:2 (1996), 101-110

'Divine Action: Expected and Unexpected', *Zygon*, 37:3 (2002), 741-750

*God's Book of Works: The Nature and Theology of Nature* (London/New York: T. & T. Clark, 2003)

Biefeldt, D.

'Can Western Monotheism Avoid Substance Dualism?', *Zygon*, 36:1 (2001), 153-177

Birch, L. C.

'Creation and the Creator', *Journal of Religion*, 37:2 (1957), 86-98

*Nature and God* (London, SCM Press, 1963)

'Religion and Nature', in Kevin J. Sharpe and John M. Ker (eds.) *Religion and Nature – with Charles Birch and Others* (Auckland: The University of Auckland Chaplaincy, 1984)

*On Purpose* (Kensington, NSW: New South Wales University, 1990)

'Neo-Darwinism, Self-Organization, and Divine Action in Evolution', in Robert J. Russell, William R. Stoeger, S.J. and Francisco J. Ayala (eds.) *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1998), 225-248

Blackmore, V. and Page, A.

*Evolution the Great Debate* (Oxford: Lion Publishing, 1989)

Blair, H. A.

'Progress', in Anthony Hanson (ed.) *Teilhard Reassessed: A Symposium of Critical Studies in the Thought of Père Teilhard de Chardin Attempting an Evaluation of his Place in Contemporary Christian Thinking* (London: Darton, Longman & Todd, 1970), 79-100

Bobrinskoy, B.

*The Mystery of the Trinity: Trinitarian Experience and Vision in the Biblical and Patristic Tradition* (tr. Anthony P. Gythiel) (Crestwood, NY: St. Vladimir's Seminary Press, 1999)

Bracken, (S. J.) J. A.

'Supervenience and Basic Christian Beliefs', *Zygon*, 36:1 (2001), 137-152

Bracken, (S. J.) J. A. and Suchocki, M. H.

(eds.) *Trinity in Process: A Relational Theology of God* (New York: Continuum, 1997)

Bravo, F.

*Christ in the Thought of Teilhard de Chardin* (Notre Dame/London: University of Notre Dame Press, 1967)

Britton, B.

'Evolution by Blind Chance', *Scottish Journal of Theology*, 39:3 (1986), 341-60

Brooke, J. H.

'Religious Belief and the Natural Sciences: Mapping the Historical Landscape', in Jitse M. van der Meer (ed.) *Facets of Faith and Science*, 1: *Historiography and Modes of Interaction* (Lanham: University Press of America; Ancaster: The Pascal Centre for Advanced Studies in Faith and Science, 1996), 1-26

Broom, N.

*How Blind the Watchmaker? Theism or Atheism: Should Science Decide?* (Aldershot: Ashgate, 1998)

'Atheistic Science: A Broth of Contradictions', in L. R. B. Mann (ed.) *Science and Christianity: Festschrift in Honour of Harold Turner and John Morton Being the Papers and Discussion from a Symposium Held in Auckland New Zealand April 21 2001* (Auckland: University of Auckland Centre for Continuing Education, 2001), 87-103

Bruce, A. B.

*The Providential Order of the World* (London: Hodder and Stoughton, 1897)

Bruggeman, A.

'The Cosmic Christ: Some Recent Interpretations', *Indian Journal of Theology*, 15 (1966), 130-142

Brun, R. B.

'Integrating Evolution: A Contribution to the Christian Doctrine of Creation', *Zygon*, 29:3 (1994), 275-296

'Does God Play Dice? A Response to Niels H. Gregersen "The Idea of Creation and the Theory of Autopoietic Processes"', *Zygon*, 34:1 (1999), 93-100

'Cosmology, Cosmic Evolution, and Sacramental Reality: A Christian Contribution', *Zygon*, 37:1 (2002), 175-192

Brümmer, V.

'Farrer, Wiles and the Causal Joint', *Modern Theology*, 8:1 (1992), 1-14



Buell, J. and Hearn, V.

(eds.) *Darwinism: Science or Philosophy?* (Richardson, TX: Foundation for Thought & Ethics, 1994)

Byrne, P. and Houlden, J. L.

(eds.) *Companion Encyclopaedia of Theology* (London: Routledge, 1995)

Charlton, (S. J.), T. P.

*The Incarnation in the Thought of Pierre Teilhard de Chardin, S.J.* (PhD thesis, Boston College, 1986)

Clayton, P. D.

*God and Contemporary Science* (Edinburgh: Edinburgh University Press, 1997)

'The Case for Christian Panentheism', *dialog*, 37:3 (1998), 201-208

'Neuroscience, the Person, and God: An Emergentist Account', in Robert John Russell, Nancey Murphy, Theo C. Meyering and Michael A. Arbib (eds.) *Neuroscience and the Person: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1999), 181-214

'The Panentheistic Turn in Christian Theology', *dialog*, 38:4 (1999), 289-293

'Panentheism Internalism: Living within the Presence of the Trinitarian God', *dialog*, 40:3 (2001), 208-215

'On the Value of the Panentheistic Analogy: A Response to Willem Drees', *Zygon*, 35:3 (2002), 699-704

Colyer, E. M.

(ed.) *The Promise of Trinitarian Theology: Theologians in Dialogue with T. F. Torrance* (Lanham, Md: Rowman & Littlefield, 2001)

Conley, J. W.

*Evolution and Man: Here and Hereafter* (Manchester: James Robinson, 1902)

Conway Morris, S.

*Life's Solution: Inevitable Humans in a Lonely Universe* (Cambridge: Cambridge University Press, 2003)

Cuénot, C.

*Teilhard de Chardin: A Biographical Study* (tr. Vincent Colimer. Translation ed. René Hague) (London: Burns & Oates, 1965)

Cuénot, C. Elliot, F. G. et al,

*Evolution, Marxism and Christianity: Studies in the Teilhardian Synthesis* (London: Garnerstone Press, 1967)

Cunningham, D. S.

*These Three are One: The Practice of Trinitarian Theology* (Oxford: Blackwell, 1998)

Davis, E. B.

'Rationalism, Voluntarism and Seventeenth-Century Science', in Jitse M. van der Meer (ed.) *Facets of Faith and Science, 3: The Role of Beliefs in the Natural Sciences* (Lanham: University Press of America; Ancaster: The Pascal Centre for Advanced Studies in Faith and Science, 1996), 135-154

Davis, J. J.

'Cosmic Endgame: Theological Reflections on Recent Scientific Speculations on the Ultimate Fate of the Universe', *Science and Christian Belief*, 11:1 (1999), 15-27

Dawkins, R.

*The Blind Watchmaker* (London: Penguin, 1988)

'Reply to Michael Poole', *Science and Christian Belief*, 7:1 (1995), 45-50

de Dorlodot, (Canon) H.

*Darwinism and Catholic Thought, i: The Origin of Species* (tr. Ernest Messenger) (New York: Denziger Brothers, 1925)

Deitz, M. M. C.

'The Theology of the Redemption of Duns Scotus and Teilhard de Chardin' (PhD Dissertation, St. Mary's University and Seminary, Baltimore, 1975)

Del Colle, R.

'Person and Being in John Zizioulas' Trinitarian Theology: Conversations with Thomas Torrance and Thomas Aquinas', *Scottish Journal of Theology*, 54:1 (2001), 70-86

Delfgaauw, B.

*Evolution: The Theory of Teilhard de Chardin* (tr. Hubert Hoskins) (London: Collins, 1969)

de Lubac, (S. J.), H.

*The Faith of Teilhard de Chardin* (tr. René Hague) (London: Burns & Oates, 1965)

*The Religion of Teilhard de Chardin* (tr. René Hague) (London: Collins, 1967)

Dennett, D. C.

*Darwin's Dangerous Idea: Evolution and the Meanings of Life* (London: Penguin, 1996)

de Solages, B.

*Teilhard de Chardin: Témoignage et Étude sur le Développement de la Pensée* (Toulouse: E. Privat, 1967)

Dewick, E. C.

*The Indwelling God: A Historical Study of the Christian Conception of Divine Immanence and Incarnation, with Special Reference to Indian Thought* (London: H. Milford; Oxford University Press, Indian Branch, 1938)

de Wit, J. J. D.

'Pierre Teilhard de Chardin', in Philip E. Hughes (ed.) *Creative Minds in Contemporary Theology: A Guidebook to the Principal Teachings of Karl Barth, G. C. Berkouwer, Emil Brunner, Rudolf Bultmann, Oscar Cullman, James Denney, C. H. Dodd, Herman Dooyeweerd, P. T. Forsyth, Charles Gore, Reinhold Niebuhr, Pierre Teilhard de Chardin, and Paul Tillich* (Grand Rapids, MI: Eerdmans, 1966), 407-450

Dick, S.

(ed.) *Many Worlds: The New Universe, Extraterrestrial Life and the Theological Implications* (Radnor, PA: Templeton Foundation Press, 2000)

Dillenberger, J.

*Protestant Thought and Natural Science: A Historical Interpretation* (London: Collins, 1961)

Dodson, E. O.

*The Phenomenon of Man Revisited* (New York: Columbia University Press, 1984)

Doye, J. Goldby, I. Line C. et al.,

'Contemporary Perspectives on Chance, Providence and Free Will', *Science & Christian Belief*, 7:2 (1995), 117-139

Draper, J. W.

*History of the Conflict between Religion and Science* (24<sup>th</sup> edition) (London: Kegan, Paul, Trench and Traubner, 1904)

Drees, W.

*Religion, Science and Naturalism* (Cambridge: Cambridge University Press, 1996)

Drummond, H.

*The Ascent of Man* (London: Hodder and Stoughton, 1894)

Durant, J. R.

(ed.) *Darwinism and Divinity: Essays on Evolution and Religious Belief* (Oxford: Basil Blackwell, 1985)

'Evolution, Ideology and World View: Darwinian Religion in the Twentieth Century', in James R. Moore (ed.) *History, Humanity and Evolution: Essays for John C. Greene* (Cambridge: Cambridge University Press, 1989), 355-373

Dussault, G.

'Le Dieu que Notre Siècle Attend: Essai sur le "Panthéisme" Teilhardien', in Gabriel Dussault, Louis Gendron, André Haguette *Panthéisme, Action, Oméga Chez Teilhard de Chardin* (Bruges/Paris: Desclée de Brouwer, 1967), 13-67

Dussault, G. Gendron, L. and Haguette, A.,

*Panthéisme, Action, Oméga Chez Teilhard de Chardin* (Bruges/Paris: Desclée de Brouwer, 1967)

Dykes, J. O.

*The Divine Worker in Creation and Providence* (Edinburgh: T. & T. Clark, 1909)

Engelbrecht, B.

'The Indwelling of the Holy Spirit. Part II: A Contemporary Statement', *Journal of Theology for Southern Africa*, 31 (1980), 36-45

Faricy, (S.J.) R. L.

'Teilhard de Chardin's Theology of Redemption', *Theological Studies*, 27 (1966), 553-579

Farley, B. W.

*The Providence of God* (Grand Rapids, MI: Baker Book House, 1988)

Farrow, D.

*Ascension and Ecclesia: On the Significance of the Doctrine of the Ascension for Ecclesiology and Christian Cosmology* (Edinburgh: T. & T. Clark, 1999)

Feenstra, R. J. and Plantinga, (Jr.) C.

(eds.) *Trinity, Incarnation, and Atonement* (Notre Dame: University of Notre Dame Press, 1989)

Fergusson, D. A. S.

*The Cosmos and the Creator: An Introduction to the Theology of Creation* (London: SPCK, 1998)

Fergusson, D. A. S. and Sarot, M.

(eds.) *The Future as God's Gift: Explorations in Christian Theology* (Edinburgh: T. & T. Clark, 2000)

Fermer, R. M.

'The Limits of Trinitarian Theology as a Methodological Paradigm', *Neue Zeitschrift für Systematische Theologie*, 41:2 (1999), 158-186

Fernando, M.

'Pierre Teilhard de Chardin: An Outline of his Thought on the History and Future of Humankind', in Leo Zonneveld and Robert Muller (eds.) *The Desire to Be Human: A Global Reconnaissance of Human Perspectives in an Age of Transformation Written in Honour of Pierre Teilhard de Chardin* (Wassenaar: Mirananda, 1983), 26-37

Finlay, G.

'*Homo Divinus*: The Ape that Bears God's Image', *Science & Christian Belief*, 15:1 (2003), 17-40

Fisher, G. P.

*The Ground of Theistic and Christian Belief* (London: Hodder and Stoughton, 1902)

Ford, L.

'Process Trinitarianism', *Journal of The American Academy of Religion*, 43:2 (1975), 199-213

'Contingent Trinitarianism', in Joseph A. Bracken, S.J. and Marjorie Hewitt Suchocki, (eds.) *Trinity in Process: A Relational Theology of God* (New York: Continuum, 1997), 41-68

Forster, P. R.

'God and the World in Saint Irenaeus: Theological Reflections' (PhD Thesis, University of Edinburgh, 1986)



Foster, M. B.

'The Christian Doctrine of Creation and the Rise of Modern Science', *Mind*, 43/172 (1934), 446-468

'Christian Theology and Modern Science of Nature (I.)', *Mind*, 44/176 (1935), 439-466

'Christian Theology and Modern Science of Nature (II.)', *Mind*, 45/177 (1936), 1-27

Fothergill, P. G.

'Teilhard and the Question of Orthogenesis', in Claude Cuénot, F. G. Elliot et al, *Evolution, Marxism and Christianity: Studies in the Teilhardian Synthesis* (London: The Garnerstone Press Limited, 1967), 30-46

Fox, P. A.

*God as Communion: John Zizioulas, Elizabeth Johnson, and the Retrieval of the Symbol of the Triune God* (Collegeville, Minn.: Liturgical Press, 2001)

Fuller, M.

'Truths from Strange Times', *Theology*, 107/837 (2004), 195-203

Galleni, L.

'How Does the Teilhardian Vision of Evolution Compare with Contemporary Theories?', *Zygon*, 30:1 (1995), 25-45

Ganssle, G. E.

(ed.) *God and Time: Four Views* (Downers Grove, IL: InterVarsity Press, 2001)

Gentner, D. R.

'The Scientific Basis of some Concepts of Teilhard de Chardin', *Zygon*, 3:4 (1968), 432-441

Goodman, L. E. and Goodman, M. J.

'Creation and Evolution: Another Round in an Ancient Struggle', *Zygon*, 18:1 (1983), 3-43

Gorringe, T. J.

*God's Theatre: A Theology of Providence* (London: SCM Press, 1991)

Gould, S. J.

*Hen's Teeth and Horse's Toes* (Harmondsworth: Penguin, 1984)

*Wonderful Life: The Burgess Shale and the Nature of History* (Harmondsworth: Penguin, 1989)

Grau, J. A.

*Morality and the Human Future in the Thought of Teilhard de Chardin: A Critical Study* (Rutherford: Fairleigh Dickinson University Press; London: Associated University Presses, 1981)

Gray, A.

*Natural Science and Religion* (New York: Charles Scribner's Sons, 1880)

*Darwinia: Essays and Reviews Pertaining to Darwinism* ed. A. Hunter Dupree (Cambridge, MA: The Belknap Press of Harvard University Press, 1963)

Gray, D. P.

*The One and the Many: Teilhard de Chardin's Vision of Unity* (London: Burns and Oates, 1969)

Green, B. G.

'Colin Gunton and the Failure of Augustine: An Exposition and Analysis of the Theology of Colin Gunton in Light of Augustine's *De Trinitate*', (PhD Thesis, Baylor University, 2000)

Paul Grenet, Abbé P.

*Teilhard de Chardin: The Man and His Theories* (tr. R. A. Rudorff) (London: Souvenir Press, 1965)

Gruner, R.

'Science, Nature and Christianity', in C. Wybrow, (ed.) *Creation, Nature and Political Order in the Philosophy of Michael Foster (1903-1959): The Classic "Mind" Articles and Others, with Modern Critical Essays* (Lewiston and Lampeter: Edwin Mellen Press, 1992) 213-243

Gruenler, R. G.

*The Inexhaustible God: Biblical Faith and the Challenge of Process Theism* (Grand Rapids, MI: Baker Book House, 1983)

Habgood, J.

Review of Pierre Teilhard de Chardin, *Man's Place in Nature*, in *Theology*, 70/563 (1967), 231-2

Hanson, A.

(ed.) *Teilhard Reassessed: A Symposium of Critical Studies in the Thought of Père Teilhard de Chardin Attempting an Evaluation of His Place in Contemporary Christian Thinking* (London: Darton, Longman & Todd, 1970)

Hardy, Sir A.

*The Living Stream: A Restatement of Evolution Theory and its Relation to the Spirit of Man* (London: Collins, 1965)

Hardy, D. W. and Sedgewick, P. H.

(eds.) *The Weight of Glory: A Vision and Practice for Christian Faith: The Future of Liberal Theology; Essays for Peter Baelz* (Edinburgh: T. & T. Clark, 1991)

Harrison, P.

*The Bible, Protestantism, and the Rise of Natural Science*, (Cambridge, Cambridge University Press, 1998)

Haught, J. F.

'Darwin's Gift to Theology', in Robert J. Russell, William R. Stoeger and Francisco J. Ayala (eds.) *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1998), 393-418

'Evolution, Tragedy, and Hope', in Ted Peters (ed.) *Science and Theology: The New Consonance* (Boulder, CO: Westview Press, 1998), 228-243

*God After Darwin: A Theology of Evolution* (Boulder, CO/Oxford: Westview Press, 2000)

'In Search of a God for Evolution: Paul Tillich and Pierre Teilhard de Chardin', *Zygon*, 37:3 (2002), 539-553

Hedman, B. A.

'Cantor's Concept of Infinity: Implications of Infinity for Contingence', *Perspectives on Science and Christian Faith*, 45:1 (1993), 8-16

Heller, M.

'Teilhard's Vision of the World and Modern Cosmology', *Zygon*, 30:1 (1995), 11-23

Helm, P.

*The Providence of God*, (Leicester: Inter-Varsity Press, 1993)

'Eternal Creation', *Tyndale Bulletin*, 45:2 (1994), 321-338

'Eternal Creation: The Doctrine of the Two Standpoints', in Colin E. Gunton (ed.) *The Doctrine of Creation: Essays in Dogmatics, History and Philosophy* (Edinburgh: T & T Clark, 1997), 29-46

'Divine Timeless Eternity', in Gregory E. Ganssle (ed.) *God and Time: Four Views* (Downers Grove, IL: InterVarsity Press, 2001), 28-60

Helm P. and Trueman C. R.

(eds.) *The Trustworthiness of God: Perspectives on the Nature of Scripture* (Grand Rapids, MI/Cambridge, Eerdmans, 2002)

Henslow, G.

*The Theory of Evolution and the Application of the Principles of Evolution to Religion* (London: MacMillan, 1873)

Heron, A. I. C.

(ed.) *The Forgotten Trinity, 3: A Selection of Papers Presented to the BCC Study Commission on Trinitarian Doctrine Today* (London: BCC/CCBI, 1991)

Hick, J.

*An Interpretation of Religion: Human Responses to the Transcendent* (Basingstoke: MacMillan Press, 1989)

Himes, M. J. and Pope, S. J.

(eds.) *Finding God in All Things* (New York: Crossroads Publishing, 1996)

Hooykaas, R.

'Teilhardism, a Pseudo-Scientific Delusion', *Free University Quarterly*, 9:1 (1963), 1-57

*Religion and the Rise of Modern Science* (Edinburgh: Scottish Academic Press, 1973)

Hughes, P. E.

(ed.) *Creative Minds in Contemporary Theology: A Guidebook to the Principal Teachings of Karl Barth, G. C. Berkouwer, Emil Brunner, Rudolf Bultmann, Oscar Cullman, James Denney, C. H. Dodd, Herman Dooyeweerd, P. T. Forsyth, Charles Gore, Reinhold Niebuhr, Pierre Teilhard de Chardin, and Paul Tillich* (Grand Rapids, Mich.: Eerdmans, 1966)

Hurst, L. D. and Wright, N. T.

(eds.) *The Glory of Christ in the New Testament: Studies in Christology in Memory of George Bradford Caird* (Oxford: Clarendon Press, 1987)

Jacobs, J. R.

'Boyle's Atomism and the Restoration Assault on Pagan Naturalism', *Social Studies of Science*, 8:2 (1978), 211-233

Jaki, S. L.

*Science and Creation: From Eternal Cycles to an Oscillating Universe* (Edinburgh: Scottish Academic Press, 1974)

*The Origin of Science and the Science of its Origins* (Edinburgh: Scottish Academic Press, 1978)

*Cosmos and Creator* (Edinburgh: Scottish Academic Press, 1980)

*God and the Cosmologists* (Edinburgh: Scottish Academic Press, 1989)

'Telltale Remarks and A Tale Untold', in C. Wybrow (ed.) *Creation, Nature and Political Order in the Philosophy of Michael Foster (1903-1959): The Classic "Mind" Articles and Others, with Modern Critical Essays* (Lewiston and Lampeter: Edwin Mellen Press, 1992), 268-296

Jensen, D.

'Pain, Pleasure and Evolution: An Analysis of Paul Draper's Critique of Theism', *Perspectives on Science and Christian Faith*, 51:1 (1999), 40-46

Jenson, R. W.

'The Christian Doctrine of God', in Geoffrey Wainwright (ed.) *Keeping the Faith: Essays to Mark the Centenary of Lux Mundi* (Philadelphia, PA: Fortress Press, 1988), 25-53

*Systematic Theology*, ii: *The Works of God* (New York: Oxford University Press, 1999)

'Creator and Creature', *International Journal of Systematic Theology*, 4:2 (2002), 216-221

Johnson, H.

*The Humanity of the Saviour: A Biblical and Historical Study of the Human Nature of Christ in Relation to Original Sin, with Special Reference to its Soteriological Significance* (London: Epworth Press, 1962)

Jones, D. G.

*Teilhard de Chardin: An Analysis and Assessment* (London: Tyndale Press, 1969)

Jones E. G.

*The Ascent through Christ: A Study of the Doctrine of Redemption in the Light of the Theory of Evolution* (London: Hodder and Stoughton, 1902)

Kaiser, C. B.

*Creation and the History of Science* (London: Marshall Pickering; Grand Rapids, MA: Eerdmans, 1991)

Kapic, K. M.

'The Son's Assumption of a Human Nature: A Call for Clarity', *International Journal of Systematic Theology*, 3:2 (2001), 154-166

Kearney, H.

*Science and Change 1500-1700* (London: Weidenfeld and Nicolson, 1971)



Kerr, F.

Review of *Intellect and Action: Elucidations on Christian Faith*, in *New Blackfriars*, 82/962 (2001), 197–200

Kilby, K.

‘Perichoresis and Projection: Problems with Social Doctrines of the Trinity’, *New Blackfriars*, 81/956 (2000), 412–445

Kim-Gibson, D. S.

‘Irenaeus of Lyons and Teilhard de Chardin: A Comparative Study of “Recapitulation” and “Omega”’, *Journal of Ecumenical Studies*, 13:1 (1976), 69–93

Klaaren, E. M.

*Religious Origins of Modern Science: Belief in Creation in Seventeenth-Century Thought* (Grand Rapids, MI: Eerdmans, 1977)

Knight, D.

‘From Metaphor to Mediation: Colin Gunton and the Concept of Mediation’, *Neue Zeitschrift für Systematische Theologie*, 43:1 (2001), 118–13

Kuyper, A.

‘Pantheism’s Destruction of Boundaries Part One’, *Methodist Review*, (1893), 520–535, [Online document]  
<http://www.ucalgary.ca/~nurelweb/papers/other/panth-2.html>

LaCugna, C.

‘The Relational God: Aquinas and Beyond’, *Theological Studies*, 46 (1985), 647–663

Lash, N.

*The Beginning and the End of Religion* (Cambridge: Cambridge University Press, 1996)

Lawson, J.

*The Biblical Theology of Saint Irenaeus* (London: Epworth Press, 1948)

Lucas, J. R.

*The Freedom of the Will* (Oxford: Caledonia Press, 1970)

*Freedom and Grace: Essays* (London: SPCK, 1976)

*The Future: An Essay on God, Temporality and Truth* (Oxford: Basil Blackwell, 1989)

'The Temporality of God', in Robert John Russell, Nancey Murphy and C. J. Isham (eds.) *Quantum Cosmology and the Laws of Nature: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1996), 235-246

Luscombe, P.

*Groundwork of Science and Religion* (Peterborough: Epworth Press, 2000)

Lyons, J. A.

*The Cosmic Christ in Origen and Teilhard de Chardin* (Oxford: Oxford University Press, 1982)

Mackay, D. M.

*Science, Chance and Providence* (Oxford: Oxford University Press, 1978)

*The Clockwork Image: A Christian Perspective on Science* (Leicester: Inter-Varsity Press, 1997)

MacLeod, D.

'The Doctrine of the Incarnation in Scottish Theology: Edward Irving', *Scottish Bulletin of Evangelical Theology*, 9:1 (1991), 40-50

*The Person of Christ* (Leicester: Inter-Varsity Press, 1998)

Mann, L. R. B.

(ed.) *Science and Christianity: Festschrift in Honour of Harold Turner and John Morton Being the Papers and Discussion from a Symposium Held in Auckland New Zealand April 21 2001* (Auckland: University of Auckland Centre for Continuing Education, 2001)

Marks, D. C.

(ed.) *Shaping a Theological Mind: Theological Context and Methodology* (Aldershot: Ashgate, 2002)

Mascall, E. L.

*Christian Theology and Natural Science: Some Questions in their Relations* (Hamden, CT: Archon Books, 1965)

McCosh, J.

*Christianity and Positivism: A Series of Lectures on Natural Theology and Apologetics* (New York: Robert Carter, 1871)

McDougall, J. A.

‘Lä\_t sich die Praktische Bedeutung der Trinitätslehre Wiedergewinnen? Neue Horizonte in der Anglo-Amerikanischen Diskussion’, *Evangelische Theologie*, 58:3 (1998), 231-242

McFarland, I.

‘Christ, Spirit and Atonement’, *International Journal of Systematic Theology*, 3:1 (2001), 83-93

McFarlane, G. W. P.

*Christ and the Spirit: The Doctrine of the Incarnation According to Edward Irving* (Carlisle: Paternoster Press, 1996)

McMullin, E.

‘Cosmic Purpose and the Contingency of Human Evolution’, *Theology Today*, 55:3 (1998), 389-414

Medawar, P. B.

‘Critical Notice’, review of Pierre Teilhard de Chardin, *The Phenomenon of Man*, in *Mind*, ns 70/277 (1961), 99-106

Midgley, M.

‘Gene-Juggling’, *Philosophy*, 54/210 (1979), 439-458

‘Selfish Genes and Social Darwinism’, *Philosophy*, 58/225 (1983), 365-377

*Evolution as a Religion: Strange Hopes and Stranger Fears* (London: Methuen, 1985)

Migliore, D. L.

*Faith Seeking Understanding: An Introduction to Christian Theology* (Grand Rapids, MI/Cambridge: Eerdmans, 1991)

Miller, K. B.

(ed.) *Perspectives on an Evolving Creation* (Grand Rapids, MI/Cambridge: Eerdmans, 2003)

Molnar, P. D.

'The Function of the Immanent Trinity in the Theology of Karl Barth: Implications for Today', *Scottish Journal of Theology*, 42:3 (1989), 367–399

'Some Dogmatic Implications of Barth's Understanding of Ebionite and Docetic Christology', *International Journal of Systematic Theology*, 2:2 (2000), 151–174

*Karl Barth and the Theology of the Lord's Supper: A Systematic Investigation* (New York: Peter Lang, 1996)

'Experience and Knowledge of the Trinity in the Theology of Ted Peters: Occasion for Clarity or Confusion?', *Irish Theological Quarterly*, 64:3 (1999), 217–243

*Divine Freedom and the Doctrine of the Immanent Trinity: In Dialogue with Karl Barth and Contemporary Theology* (Edinburgh: T. & T. Clark; New York: Continuum, 2002)

Moltmann, J.

*The Future of Creation* (tr. Margaret Kidd) (London: SCM Press, 1979)

*The Trinity and the Kingdom of God: The Doctrine of God* (tr. Margaret Kohl) (London: SCM Press, 1981)

*God in Creation: An Ecological Doctrine of Creation* (tr. Margaret Kohl) (London: SCM, 1985)

Monod, J.

*Chance and Necessity: An Essay on the Natural Philosophy of Modern Biology* (tr. Austryn Wainhouse) (Harmondsworth: Penguin, 1997)

Mooney, (S. J.) C. F.

*Teilhard de Chardin and the Mystery of Christ* (London: Collins, 1976)

Moore, A. L.

*Science and the Faith: Essays on Apologetic Subjects* (London: Kegan Paul, Trench, Trübner, 1898)

Moore, J. R.

*The Post-Darwinian Controversies. A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870–1900* (Cambridge: Cambridge University Press, 1979)

(ed.) *History, Humanity and Evolution: Essays for John C. Greene* (Cambridge: Cambridge University Press, 1989)

Morgan, C. L.

*Emergent Evolution* (London: Williams and Norgate, 1923)

Murphy, G. L.

‘A Theological Argument For Evolution’, *Journal of The American Scientific Association*, 38 (1986), 19-26 [Online document] <http://www.asa3.org/ASA/PSCF/1986/JASA3-86Murphy.html>

‘Chiasmic Cosmology: A Response to Fred Van Dyke [38.1 p. 11]’, *Perspectives on Science and Christian Faith*, 38:2 (1986), 124-126 [Online document] <http://www.asa3.org/ASA/PSCF/1986/JASA6-86Murphy.html>

‘The Third Article in the Science-Theology Dialogue’, *Perspectives on Science and Christian Faith*, 45:3 (1993), 162-168 [Online document] <http://www.asa3.org/ASA/PSCF/1993/PSCF9-93Murphy.html>

‘Cross-Based Apologetics for a Scientific Millennium’, *Perspectives on Science and Christian Faith*, 52:3 (2000), 190-193 [Online document] <http://www.asa3.org/ASA/PSCF/2000/PSCF9-00Murphy.html>

Nelson, J. S.

‘Divine Action: Is It Credible?’, *Zygon*, 30:2 (1995), 267-280

Nelson, P. A.

'A Sensible God: The Bearing of Theology on Evolutionary Explanation', in Jitse M. van der Meer (ed.) *Facets of Faith and Science*, 3: *The Role of Beliefs in the Natural Sciences* (Lanham: University Press of America; Ancaster: Pascal Centre for Advanced Studies on Faith and Science, 1996), 169-197

North, R.

'Teilhard and the Problem of Creation', *Theological Studies*, 24 (1963), 577-601

Oakley, F.

'Christian Theology and the Newtonian Science: The Rise of the Concept of the Laws of Nature', in C. Wybrow (ed.) *Creation, Nature and Political Order in the Philosophy of Michael Foster (1903-1959): The Classic "Mind" Articles and Others, with Modern Critical Essays* (Lewiston and Lampeter: Edwin Mellen Press, 1992), 179-211

O'Donnell, J. J.

*The Mystery of the Triune God* (London: Sheed & Ward, 1988)

Oliver, S.

'Motion According to Aquinas and Newton', *Modern Theology*, 17:2 (2001), 163-199

O'Manique, J.

*Energy in Evolution* (London, Garnstone Press, 1969)

Osborn, E.

*Irenaeus of Lyons* (New York: Cambridge University Press, 2001)

Paik, G. L.

'An Analysis of Sallie McFague's Metaphorical Theology with Special Reference to Gunton's Trinitarian Theology of Creation' (MA Thesis, Trinity International University, 2000)

Pailin, D. A.

*God and the Processes of Reality: Foundations of a Credible Theism* (London/New York: Routledge, 1989)



'Truth in a Heresy? 2. Deism', *Expository Times*, 112:4 (2001), 112-116

Pannenberg, W.

*Toward a Theology of Nature: Essays on Science and Faith* ed. Ted Peters (Louisville, KY: Westminster/John Knox Press, 1993)

Peacocke, A. R.

'The Molecular Organization of Life', in I. T. Ramsey (ed.) *Biology and Personality: Frontier Problems in Science, Philosophy and Religion* (Oxford: Basil Blackwell, 1965), 17-39

*Science and the Christian Experiment* (London: Oxford University Press, 1971)

'The Nature and Purpose of Man in Science and Christian Theology', *Zygon*, 8:3-4 (1973), 373-394

'Chance and the Life Game', *Zygon*, 14:4 (1979), 301-22

*Creation and the World of Science* (Oxford: Clarendon Press, 1979)

(ed.) *The Sciences and Theology in the Twentieth Century* (Stocksfield: Oriel Press, 1981)

'Biological Evolution and Christian Theology Today', *Theology*, 87/715 (1984), 35-43

'Biological Evolution and Christian Theology - Yesterday and Today', in John Durant (ed.) *Darwinism and Divinity: Essays on Evolution and Religious Belief* (Oxford: Basil Blackwell, 1985), 101-130

*God and the New Biology* (London: J. M. Dent, 1986)

*Intimations of Reality: Critical Realism in Science and Religion* (Notre Dame: University of Notre Dame Press, 1986)

'The Challenge of Science to Theology and the Church', in D. W. Hardy and P. H. Sedgewick (eds.) *The Weight of Glory: A Vision and Practice for Christian Faith: The Future of Liberal Theology; Essays for Peter Baelz* (Edinburgh: T. & T. Clark, 1991), 37-53

*Theology for a Scientific Age: Being and Becoming – Natural, Divine and Human* (enlarged edition) (London: SCM, 1993)

'The Kindling of the Divine Flame: Some Reflections on Natural Becoming, Complexity, and the Humanum', *Studies in Science and Theology*, 1 (1993), 115-131

'Science and God the Creator', *Zygon*, 28:4 (1993), 469-484

'A Response to Polkinghorne', *Science and Christian Belief*, 7:2 (1995), 109-115

'The Challenge of Science to the Thinking Church', *Modern Believing*, 36:4 (1995), 15-26

'Science and God the Creator', in John Marks Templeton (ed.) *Evidence of Purpose: Scientists Discover the Creator* (New York: Continuum, 1996), 91-104

'God's Interaction with the World: The Implications of Deterministic "Chaos" and of Interconnected and Interdependent Complexity', in Robert J. Russell, Nancey Murphy and Arthur R. Peacocke (eds.) *Chaos and Complexity: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1997), 263-287

'Response to Davis', *Science and Christian Belief*, 9:2 (1997), 145-147

'Biological Evolution – A Positive Theological Appraisal', in Robert John Russell, William R. Stoeger and Francisco J. Ayala (eds.) *Evolutionary and Molecular Biology* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1998), 357-376

'The Challenge and Stimulus of the Epic of Evolution to Theology', in Steven Dick (ed.) *Many Worlds: The New Universe, Extraterrestrial Life and the Theological Implications* (Radnor, PA: Templeton Foundation Press, 2000), 89-117

'The Cost of New Life', In John Polkinghorne (ed.) *The Work of Love: Creation as Kenosis* (Grand Rapids, MI: Eerdmans; London, SPCK, 2001), 21-42

Peacocke, A. R. and Dominian, J.

*From Cosmos to Love: The Meaning of Human Life* (London: Darton, Longman and Todd, 1976)

Peck, S. L.

'Randomness, Contingency, and Faith: Is there a Science of Subjectivity?', *Zygon*, 38:1 (2003), 5-23

Peterson, G. R.

'God, Determinism, and Action: Perspectives from Physics', *Zygon*, 35:4 (2000), 881-890

'Whither Panentheism?', *Zygon*, 36:3 (2001), 395-405

Pittenger, N.

*The Principles and Practices of the Christian Faith* (London: SCM, 1952)  
*The Word Incarnate: A Study of the Doctrine of the Person of Christ* (Welwyn: James Nisbet, 1959)

*God's Way with Men* (London: Hodder and Stoughton, 1969)

*God in Process* (London: SCM Press, 1967)

'God "The One in Three, The Three in One"', *Religion in Life*, 48 (1979), 93-100

'Is God Responsible for Evil?', *Modern Churchman*, 24:3-4 (1981), 183-186

'The Divine Activity', *Encounter*, 47:3 (1986), 257-266

Polkinghorne, J.

'Natural Science, Temporality and Divine Action', *Theology Today*, 55 (1998), 329-343

(ed.) *The Work of Love: Creation as Kenosis* (Grand Rapids, MI: Eerdmans; London: SPCK, 2001)

Poole, M.

'A Critique of Aspects of the Philosophy and Theology of Richard Dawkins', *Science and Christian Belief*, 6:1 (1994), 41-59

'Response to Richard Dawkins' Reply', *Science and Christian Belief*, 7:1 (1995), 51-58

Poythress, V. S.

'Why Scientists Must Believe in God: Divine Attributes of Scientific Law', *Journal of the Evangelical Theological Society*, 46:1 (2003), 111-123

Purves, J.

'The Interaction of Christology and Pneumatology in the Soteriology of Edward Irving', *Pneuma*, 14:1 (1992), 81-90

Olivier Rabut, (O. P.) O.

*Dialogue with Teilhard de Chardin* (London/New York: Sheed and Ward, 1961)

Ramsey, I. T.

(ed.) *Biology and Personality: Frontier Problems in Science, Philosophy and Religion* (Oxford: Basil Blackwell, 1965)

Rideau, É.

*Teilhard de Chardin: A Guide to his Thought* (London: Collins, 1967)

Riggan, G. A.

'Testing the Teilhardian Foundations', *Zygon*, 3:3 (1968), 259-313

Rolston, (III) H.

*Science and Religion: A Critical Survey* (Orlando, FL: Harcourt Brace, 1997)

Russell, C. A.

*Cross-currents: Interactions between Science and Faith* (Leicester: InterVarsity Press, 1985)

Russell, E.

'Reconsidering Relational Anthropology: A Critical Assessment of John Zizioulas' Theological Anthropology', *International Journal of Systematic Theology*, 5:2 (2003), 168-186

Russell, R. J.

'Is Nature Creation? Philosophical and Theological Implications of Physics and Cosmology from a Trinitarian Perspective', *Studies in Science and Theology*, 3 (1995) 94-124

'Finite Creation without a Beginning: The Doctrine of Creation in Relation to Big Bang and Quantum Cosmologies', in Robert John Russell, Nancey Murphy, and C. J. Isham (eds.) *Quantum Cosmology and the Laws of Nature: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1996), 291-325

'Special Providence and Genetic Mutation: A New Defense of Theistic Evolution', in Robert J. Russell, William R. Stoeger, S.J. and Francisco J. Ayala (eds.) *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1998), 191-223

'Time in Eternity: Special Relativity and Eschatology', *dialog*, 39:1 (2000), 46-55

Russell, R. J. Murphy, N. and Isham, C. J.

(eds.) *Quantum Cosmology and the Laws of Nature: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1996)

Russell, R. J. Murphy, N. Meyering, T. C. and Arbib, M. A.

(eds.) *Neuroscience and the Person: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1999)

Russell, R. J. Murphy, N. and Peacocke, A. R.

(eds.) *Chaos and Complexity: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1997)

Russell, R. J. Stoeger, (S. J.) W. J. and Ayala F. J.

(eds.) *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1998)

Scheffczk, L.

*Creation and Providence* (tr. Richard Strachan) (London: Burns & Oates, 1970)

Schwarz, H.

*Creation* (Grand Rapids, MI/Cambridge: Eerdmans, 2002)

Schwöbel, C.

(ed.) *Trinitarian Theology Today: Essays on Divine Being and Act* (Edinburgh: T. & T. Clark, 1995)

‘God is Love: The Model of Love and the Trinity’, *Neue Zeitschrift für Systematische Theologie*, 40:3 (1998), 307–328

‘Radical Monotheism and the Trinity’, *Neue Zeitschrift für Systematische Theologie*, 43:1 (2001), 54–74

Schwöbel, C. and Gunton, C. E.

(eds.) *Persons, Divine and Human: King’s College Essays on Theological Anthropology* (Edinburgh: T. & T. Clark, 1991)

Sell, A. P. F.

‘Transcendence, Immanence and the Supernatural’, *Journal of Theology for Southern Africa*, 26 (1979), 56–66

‘Autonomy, Immanence and the Loss of Authority’, *Churchman*, 96:2 (1982), 123–141

Shanahan, T.

‘Darwinian Naturalism, Theism, and Biological Design’, *Perspectives on Science and Christian Faith*, 49:3 (1997), 170–171 [[Online document]  
<http://www.asa3.org/ASA/PSCF/1997/PSCF9-97Shanahan.html>

Sharpe, K. J. and Ker, J. M.

(eds.) *Religion and Nature – with Charles Birch and Others* (Auckland: The University of Auckland Chaplaincy, 1984)



Shaw, (IV) W. H.

'The Trinitarian Theology of Colin Gunton: A Contribution to the Development of an Interpretive Tool and Model for the Theological Engagement of Culture', (M.A. Thesis, Trinity Evangelical Divinity School, 2000)

Shields, G. W.

'Design, Chance and Necessity in Recent Science and Philosophy', in Jitse M. van der Meer (ed.) *Facets of Faith and Science*, 4: *Interpreting God's Action in the World* (Lanham: University Press of America; Ancaster: Pascal Centre for Advanced Studies on Faith and Science, 1996), 199-214

Simpson, G. G.

*The Meaning of Evolution: A Study of the History of Life and of its Significance for Man* (New Haven: Yale University Press, 1951)

Smethurst, A. F.

*Modern Science and Christian Beliefs* (London: James Nisbet, 1955)

Smith, R. B.

'God and Evolutive Creation', in Anthony Hanson (ed.) *Teilhard Reassessed: A Symposium of Critical Studies in the Thought of Père Teilhard de Chardin Attempting an Evaluation of his Place in Contemporary Christian Thinking* (London: Darton, Longman & Todd, 1970), 41-58

Stewart, (Jr.) C. Y.

*Nature in Grace: A Study in the Theology of Nature* (Macon, GA: Mercer University Press, 1983)

Stoeger, (S. J.) W. R.

'Contemporary Physics and the Ontological Status of the Laws of Nature', in Robert John Russell, Nancey Murphy, and C. J. Isham (eds.) *Quantum Cosmology and the Laws of Nature: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications; Berkeley, CA: Center for Theology and the Natural Sciences, 1996), 207-31

'Faith Reflects on the Evolving Universe', in Michael J. Himes and Stephen J. Pope (eds.) *Finding God in All Things* (New York: Crossroads Publishing, 1996), 162-182

'God and Time: The Action and Life of the Triune God in the World', *Theology Today*, 55:3 (1998), 365-388

Storr, V. F.

*Development and Divine Purpose* (London: Methuen, 1906)

Suchocki, M. H.

'Process Theology and Evolution', in Bas Van Irsel (ed.) *Evolution and Faith: Concilium 2000/1* (London: SCM Press, 2000), 53-61

'God, Trinity, Process', *dialog*, 40:3 (2001), 169-174

Sykes, C.

'Teilhard de Chardin and the Cosmic Christ', *Theology*, 78/663 (1975), 467-474

Sykes, S. W.

(ed.) *Karl Barth: Centenary Essays* (Cambridge: Cambridge University Press, 1989)

Tamny, M.

'Newton, Creation, and Perception', *Isis*, 70:1 (1979), 48-58

Tanner, K.

*God and Creation in Christian Theology: Tyranny or Empowerment?* (Oxford/New York: Basil Blackwell, 1988)

Temple, F.

*The Relations Between Religion and Science* (London: MacMillan, 1884)

Templeton, J. M.

(ed.) *Evidence of Purpose: Scientists Discover the Creator* (New York: Continuum, 1996)

Thomas, O. C.

'Not Yet a Case for Christian Panentheism', *dialog*, 38:4 (1999), 285-287

Thornton, L. S.

*The Incarnate Lord: An Essay Concerning the Doctrine of the Incarnation in its Relation to Organic Conceptions* (London: Longman, Green and Co., 1928)

Torrance, I. R.

'The Trinity in Relation to Creation and Incarnation', *Neue Zeitschrift für Systematische Theologie*, 38:1 (1996), 29-37

Torrance, T. F.

*Christian Theology and Scientific Culture* (Belfast: Christian Journals, 1980)

*The Ground and Grammar of Theology* (Belfast: Christian Journals Limited, 1980)

*Divine and Contingent Order* (Oxford: Oxford University Press, 1981)

'Divine and Contingent Order', in Arthur R. Peacocke (ed.) *The Sciences and Theology in the Twentieth Century* (Stocksfield: Oriel Press, 1981), 81-97

*The Christian Frame of Mind* (Edinburgh: Handsel Press, 1985)

*The Mediation of Christ* (Edinburgh: T. & T. Clark, 1992)

*The Christian Doctrine of God, One Being Three Persons* (Edinburgh: T. & T. Clark, 1996)

'Revelation, Creation and Law', *Heythrop Journal*, 37:3 (1996), 273-283

'Creation, Contingent World-Order, and Time: A Theologico-Scientific Approach', in M. Wegner (ed.) *Time, Creation and World Order*, (*Acta Jutlandica* LXXIV: 1, Humanities Series 72. Aarhus: Aarhus University Press, 1999), 206-236

Vale, (S. S. J.) C. J.

'Teilhard de Chardin: Ontogenesis vs. Ontology', *Theological Studies*, 53 (1992), 313-337

van der Meer, J. M.

(ed.) *Facets of Faith and Science, 1: Historiography and Modes of Interaction* (Lanham: University Press of America; Ancaster: The Pascal Centre for Advanced Studies in Faith and Science, 1996)

(ed.) *Facets of Faith and Science, 3: The Role of Beliefs in the Natural Sciences* (Lanham: University Press of America; Ancaster: The Pascal Centre for Advanced Studies in Faith and Science, 1996)

(ed.) *Facets of Faith and Science, 4: Interpreting God's Action in the World* (Lanham: University Press of America; Ancaster: Pascal Centre for Advanced Studies on Faith and Science, 1996)

Vanhoozer, K. J.

(ed.) *The Trinity in a Pluralistic Age: Theological Essays on Culture and Religion* (Grand Rapids, MI/Cambridge: Eerdmans, 1997)

'The Case Remains Unproven', *dialog*, 38:4 (1999), 281-285

Van Till, H. J.

'Can The Creationist Tradition Be Recovered? Reflections on 'Creation & the History of Science' [C. Kaiser]', review of Christopher B. Kaiser, *Creation and the History of Science*, in *PSCF*, 44:3 (1992), 178-185 [Online document] <http://www.asa3.org/ASA/PSCF/1992/PSCF9-92VanTill.html>

'Is Special Creationism a Heresy?', *Christian Scholar's Review*, 22:4 (1993), 380-395

'Basil, Augustine, and the Doctrine of Creation's Functional Integrity', *Science and Christian Belief*, 8:1 (1996), 21-38

'The Creation: Intelligently Designed or Optimally Equipped', *Theology Today*, 55:3 (1998), 344-364

'Is the Universe Capable of Evolving?', in Keith B. Miller (ed.) *Perspectives on an Evolving Creation* (Grand Rapids, MI/Cambridge: Eerdmans, 2003), 313-334

Wacome, D. H.

'Theism, Christianity and the Grand Evolutionary Story', in Jitse M. van der Meer (ed.) *Facets of Faith and Science, 4: Interpreting God's Action in the World* (Lanham: University Press of America; Ancaster: Pascal Centre for Advanced Studies on Faith and Science, 1996), 143-154

Wainwright, G.

(ed.) *Keeping the Faith: Essays to Mark the Centenary of Lux Mundi* (Philadelphia, PA: Fortress Press, 1988)

Walker A.

(ed.) *Different Gospels* (London: Hodder and Stoughton, 1988)

Walsh, B. J.

'Theology of Hope and the Doctrine of Creation: An Appraisal of Jürgen Moltmann', *Evangelical Quarterly*, 59 (1987), 53–76

Ward, K.

*Religion and Creation* (Oxford: Clarendon Press, 1996)

*God, Faith and the New Millennium: Christian Belief in an Age of Science* (Oxford: Oneworld, 1998)

Weber, O.

*Foundations of Dogmatics: Volume One* (tr. and annot. Darrell L. Guder) (Grand Rapids, MI: Eerdmans, 1981)

Webster, W.

(ed.) *The Cambridge Companion to Karl Barth* (Cambridge: Cambridge University Press, 2000)

Weeks, I. and Jacobs, S.

'Theological and Philosophical Presuppositions of Ancient and Modern Science: A Critical Analysis of Foster's Account', in C. Wybrow (ed.) *Creation, Nature and Political Order in the Philosophy of Michael Foster (1903-1959): The Classic "Mind" Articles and Others, with Modern Critical Essays* (Lewiston and Lampeter: Edwin Mellen Press, 1992), 255-268

Wegner, M.

(ed.) *Time, Creation and World Order*, (*Acta Jutlandica* LXXIV: 1, Humanities Series 72. Aarhus: Aarhus University Press, 1999)

Weinandy, T. G.

*In the Likeness of Sinful Flesh: An Essay on the Humanity of Christ*  
(Edinburgh: T. & T. Clark, 1993)

White, A. D.

*A History of the Warfare of Science with Theology in Christendom*  
(New York: D. Appleton, 1897)

Whitehead, A. N.

*Science and the Modern World* (Cambridge: Cambridge University Press,  
1926)

Wilcox, David L.

'A Blindfolded Watchmaker: The Arrival of the Fittest', in Jon Buell and Virginia Hearn (eds.) *Darwinism: Science or Philosophy?* (Richardson, TX: Foundation for Thought & Ethics, 1994), Chapter 13 [Online Document] <http://www.leaderu.com/orgs/fte/darwinism/chapter13.html>

'How Blind the Watchmaker?', in John Marks Templeton (ed.) *Evidence of Purpose: Scientists Discover the Creator* (New York: Continuum, 1996), 168-181

Wiles, M.

'Religious Authority and Divine Action', *Religious Studies*, 7 (1971), 1-12

*God's Activity in the World* (London: SCM, 1986)

'Providence', *Epworth Review*, 21:1 (1994), 76-83

Wilks, J. G. F.

'The Trinitarian Ontology of John Zizoulas', *Vox Evangelica*, 25 (1995), 63-88

Williams, S. N.

*Revelation and Reconciliation: Windows on Modernity* (Cambridge: Cambridge University Press, 1995)



Wingren, G.

*Man and the Incarnation: A Study in the Biblical Theology of Irenaeus* (Edinburgh: Oliver and Boyd, 1959)

Wirt, B. F.

*The Providence of God* (Grand Rapids, MI: Baker, 1988)

Wright, G. F.

'The Divine Method of Producing Living Species', *Bibliotheca Sacra*, 33:132 (1876), 448-93

'Calvinism and Darwinism', *Bibliotheca Sacra*, 66 (1909), 685-691

Wybrow, C.

(ed.) *Creation, Nature and Political Order in the Philosophy of Michael Foster (1903-1959): The Classic "Mind" Articles and Others, with Modern Critical Essays* (Lewiston and Lampeter: Edwin Mellen Press, 1992)

Wykstra, S. J.

'Have Worldviews Shaped Science? A Reply to Brooke', in Jitse M. van der Meer (ed.) *Facets of Faith and Science*, 1: *Historiography and Modes of Interaction* (Lanham: University Press of America; Ancaster: The Pascal Centre for Advanced Studies in Faith and Science, 1996), 91-111

Zizioulas, J. D.

'On Being a Person: Towards an Ontology of Personhood', in Christoph Schwöbel and Colin E. Gunton (eds.) *Persons, Divine and Human: King's College Essays on Theological Anthropology* (Edinburgh: T. & T. Clark, 1991), 33-46

'The Doctrine of the Holy Trinity: The Significance of the Cappadocian Contribution', in Christoph Schwöbel (ed.) *Trinitarian Theology Today: Essays on Divine Being and Act* (Edinburgh: T. & T. Clark, 1995), 44-60

*Being as Communion: Studies in Personhood and the Church* (Crestwood, NY: St. Vladimir's Seminary Press, 1997)

Zonneveld, L. and Muller, R.

(eds.) *The Desire to Be Human: A Global Reconnaissance of Human Perspectives in an Age of Transformation Written in Honour of Pierre Teilhard de Chardin* (Wassenaar: Mirananda, 1983)